THE NEW AMERICAN THRIFT

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Editor in Charge of this Volume

ROY G. BLAKEY, Ph.D.,
Assistant Professor of Economics, Univ. of Minnesota, and Recently Associate Director, Savings Division, United States Treasury Department

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Editor in Charge, Roy G. Blakey, Recently Associate Director, Savings Division, Treasury Department, Washington, D. C.

America's New Conception of Thrift

Foreword

FOR many years prior to the Great War the term thrift carried to the minds of many Americans several unfortunate connotations. It was frequently associated with parsimony, niggardliness, miserliness and other traits which every liberal and generous-hearted American properly thought very unbecoming to one who shared the bounteous resources, the great opportunities and freedom of the Western World. But the tremendous struggle which threatened not only to shackle the Old World, but even to rob the New World of its cherished liberties brought home to our people a new conception of thrift, in fact, an appreciation of true thrift and a realization of the fatal consequences of clinging to old misconceptions.

Many realized for the first time that it was a matter of life and death to thousands of soldiers and of civilians also, whether they wasted or whether they conserved food and fuel; whether by demanding non-essentials they diverted labor, materials and machinery to making these non-essentials, or whether they freed this labor to fight in the trenches or to supply those who fought, or to feed and clothe those who supplied the fighters. We learned of our economic unity and interdependence as never before, we saw that the real army consisted not only of the men in uniform, but of the entire people who supported them. Anybody who wasted or misdirected the use of labor or materials or machinery or land or any other productive factor was a public enemy for, by so doing, he weakened the forces in the front lines or, what was just as important, the great civilian army behind the trenches.

Food that went to the garbage pail and labor that was idle represented only the most obvious kind of waste. Brain, brawn, material and equipment that were misdirected, that were used for second-class purposes when they could have been used for first-class purposes, were to that extent wasted. On the proper use of these capacities and resources hung not only the life and death of the soldiers and civilians but, also, the progress of civilization itself.

Thrift was thus impressively shown to Americans in its true light. Instead of suggesting stinginess, it came to connote *proper use*, the use of means in such a way as to achieve the greatest results. It was closely associated with effectiveness, loyalty, patriotism, victory. It took a new place, an exalted place, its true place in popular estimation.

Though the call for thrift, that is, the proper use of capacities and resources, was more dramatic and insistent during the war than it is in peace time, nevertheless, its importance for the long run happiness of the race was no greater then than it is now. It is true that economies and sacrifices that were needed then would not be justifiable now. Proper use always implies adjustment and adaptation to existing circumstances and conditions, and this requires that an eye be kept on the future all the while.

Man is so constituted that he has a recurring series of wants. Regardless

of how much food he may have on hand he cannot eat enough today to satisfy his hunger for all time. He requires a constant stream of income in the form of food, clothing and fuel, to satisfy his needs. As certain primal needs are satisfied, other desires make themselves felt and he is stimulated to produce more things to satisfy these desires also. For all practical purposes, man's wants seem capable of indefinite expansion. The satisfaction of all of them requires an indefinite expansion of production, not an indefinite increase in the production of bread for any one man, but after sufficient bread, then better bread, better clothes, better houses, automobiles, aeroplanes, music, painting, literature, leisure to philosophize, to think on higher things.

That individual, that family or that nation which consumes daily or yearly all that it produces can never progress. If it considers today only, if it takes no thought of the future, it is doomed to stagnation if not to death. But by devoting part of current energy to producing tools and other equipment, the productive capacity of following years is increased, and it soon becomes possible to satisfy more and more current wants and at the same time to devote more energies each year to the increase of equipment. This process is cumulative.

The increase of productive capacity through the improvement of health, technical skill and education is just as important as the increase of machine equipment or land fertility. In fact, the piling up of highly perishable goods can not go very far and the accumulation of durable consumption goods like clothing, houses, and even machinery, can conceivably be pushed beyond practical limits for any given set of conditions. We are at present, however, far distant from such limits. In truth, they are beyond our present horizon, so that no one has cause to fear that we may become over-thrifty. It is true, however, that real thrift means devoting more and more attention to the development of the capacities of the human machine, not only its capacities for producing material goods but also its capacities for producing and enjoying the highest things of life.

In our careless thought and speech much passes for thrift that is not thrift. The Italian immigrant who starves his wife and takes his fourteen-year old boy from school to put him in a factory that he may help pay for a new home little knows the meaning of thrift. The father who sends to college his son who does not have the capacity to take advantage of his opportunities does not practice true thrift. The state which has an educational system poorly adapted to the needs of its children is not thrifty. The nation or society which, through lack of foresight, allows its governments to spend money recklessly, its railroads—the arteries of its industrial organization—to become almost hopelessly clogged, its great mass of working humanity and its captains of industry to get at such cross purposes that only 50 per cent to 75 per cent of possible production is realized while millions want and thousands actually starve for the necessities of life—that nation, society, or world certainly has some lessons to learn about true thrift.

We are so busy with the day's work that we neglect the future. The business man who is most intent upon making money, the banker who is popularly thought of as being most thrifty, the educator and the so-called states-

man who have no real vision are all akin to the thriftless fellow who is happy if he has a supper tonight, regardless of what the morrow may bring.

In fact, most of us are so absorbed with the things immediately before us that we do not have time to attend to our most important concerns. Every two years we elect to Congress and our legislatures men nominated by interested parties, or hale fellows well met, rather than take the time to attend the primaries and see that properly qualified men are nominated. Our civilization with its industrial, political and social organization has become so complex that our old machinery will not function efficiently and we are too busy to study the problems seriously and too short sighted to put in positions of responsibility men who are best qualified to guide us. After we elect our representatives, we do not let them concentrate their energies upon matters of moment. We fritter away their time by making them petty servants to look after pensions, allotments, appointments, post office buildings, river and harbor improvements and other matters of local interest. As a result they do not have time to consider duly how that this legislation or that legislation, or the lack of it, will stir the nation or the world from its foundations. For example, they do not see until it is too late, that the easy loan policy of financing a war carries with it the risk of upsetting standards of living, wages, and the whole industrial organization. The lack of a little foresight and judgment may easily nullify a generation of thrift education, it may even throw the world into confusion.

Little wonder that domestic affairs run amuck, that civilization barely escapes annihilation. Possibly those who profess to be our leaders should receive the greatest censure. To them we look for guidance, but all of us are too much inclined to shift the blame. We ourselves are all responsible for selecting our leaders and hence for our leadership. Because of our lack of vision in the past the world has run riot.

But we are awaking to a realization of our plight. We are still groping to find our way out, but we are getting new ideas of industrial and social efficiency. We are coming to see that for a nation to prosper, to thrive in the true sense, thrift must mean much more to us than it has in the past. We are coming to learn that the essence of thrift lies in seeing the present and the future in their true relations, and then using all available means in such ways as to attain the greatest sum total of human welfare. This implies foresight, an appreciation of relative values and consequently of things most worth while, as well as some conception of practical methods of attaining them. We are coming to appreciate as never before that, "Where there is no vision the people perish." And so America has a new conception of thrift. Her people are less concerned about saving *per se*, but they are more concerned about conservation and proper utilization as a means to greater service, greater welfare and greater happiness.

Roy G. Blakey.

The Relation of Thrift to Nation Building

By T. N. Carver
Harvard University

THE problem of the efficient use of the laborer's time and working energy has not been without interest to business managers, and even to statesmen. To find easier and quicker ways of doing whatever the laborer has to do is to increase the national production and prosperity. All this is as true of every factor of production as it is of the laborer himself.

Direction of Productive Power

It is just as important that productive agents should be doing the right things as that they should be doing whatever they happen to be doing with the utmost speed and facility. To misdirect our productive power, causing it to produce things of little importance, is quite as great a loss, and quite as great a hindrance to our prosperity, as to allow it to do things in a wasteful and slip-shod manner. To direct it wisely, so that it is always producing the things of greatest permanent value, is to increase and perpetuate our national prosperity.

Important as this problem is, it has not yet attracted much of the attention of business managers. They are generally more intent upon the volume of the output than upon the character of the things produced.

One of the most important things we can possibly do with our productive power is to make it add to itself, so that it may grow from year to year. This can only be done by setting a part of it at work producing producers' goods, instead of keeping it all at work producing consumers' goods. If very little of it is directed toward the making of tools, machinery, buildings, fences, irrigation ditches, and other forms of productive equipment, our means of production will increase very slowly or not at all. If our means of production does not increase, our productive power cannot. If, however, a large enough share of our productive power is engaged in producing producers' goods, we shall, of course, find ourselves in possession of more producers' goods, larger and better equipment of all kinds, and that, consequently, our productive power is increasing from year to year, and from decade to decade. If, for example, 50 per cent of our productive power is engaged in making tools, machinery, and equipment, these things will obviously increase more rapidly than if only 10 per cent of our productive power is so engaged while 90 per cent is producing things for immediate consumption.

Production and Demand

In the present state of civilization, with our money economy, men generally try to produce what people are willing to buy. If very few people are willing to buy tools, machinery, and equipment; or if very little money is spent for such things, very few will be produced. If much money is spent for such things, many will be produced. If half the money spent in the country were spent for tools, machinery, and equipment, approximately half of our productive power would be engaged in making such things. If only one tenth of the money is spent in purchasing

such things, not much if any more than one tenth of our productive power would be engaged in making them. It would be a very thrifty nation half of whose purchases consisted of instruments of production; it would be a rather thriftless nation one tenth of whose purchases consisted of such things. The former would advance rapidly in productive power, the latter slowly. The former would have much more to spend from year to year, the latter little, if any more.

It is, therefore, just as important that the people of this country spend their money wisely, as that they utilize their labor power efficiently. To throw money away, or dump it into the sea, is no great loss to the nation, however much of a loss it may be to the individual who owns the money. The material is lost, and that is all. When it is spent, however, instead of being thrown away, it virtually hires men to make the things for which it is spent. If it is spent wastefully, it virtually wastes the working energy of the men whom it hires. That wasting of man power is a much more serious thing than the mere loss of money.

THE NATURE OF THRIFT

There is a widespread fallacy to the effect that extravagance gives employment to labor. This fallacy is probably due to the opinion that thrift consists in hoarding money or hiding it away. This, however, is not thrift at all. To hide money away, and keep it out of use, is a very thriftless thing to do. The thrifty person is not a miser. He is one who spends money just as freely as the extravagant man, but he spends it wisely instead of unwisely. He spends it for durable things, instead of for transient things. He spends it for things which increase his strength, physically, mentally, morally or financially, instead of for things which add nothing to his strength in any way.

When we realize that thrift consists in spending money wisely, instead of unwisely, we shall very easily see that the thrifty man spends exactly as much money as the thriftless man, provided he has as much money to spend. Moreover, in the long run, the thrifty man will spend more, because he will have more to spend than the thriftless man; and the thrifty community will be a community in which more money is spent than in the thriftless community. If anyone doubts this statement, let him ponder the following illustration.

Let us suppose that there are two communities which we will call Thrift Town and Spendthrift Town, and that these two communities start even, that is, that they have equal numbers, equal resources, and equal prosperity at the beginning of the comparison. Let us suppose that in each community there is, this year, a total income of $1,000,000. This $1,000,000 represents all that the community produces, and consequently all that it has to spend. Thrift Town finds that it can live comfortably and efficiently on nine tenths of its income, that is $900,000, and decides to spend $100,000 for permanent improvements,—improvements that will add to its productive power next year and the year after. Spendthrift Town, however, decides to spend its whole $1,000,000 on consumers' goods. It will be noticed that the same amount of money is spent in both towns. The difference is solely in the class of things for which the money is spent. Spendthrift Town spends $1,000,000 for consumers' goods. Thrift Town spends $900,000 for con-

sumers' goods, and $100,000 for buildings, machinery, tools and live stock,—a total of $1,000,000 spent for goods. Next year, however, Thrift Town will produce more than Spendthrift Town. That is, Spendthrift Town will have its $1,000,000 worth of product,—its people will have $1,000,000 to spend. The buildings, tools, machinery, live stock, etc., which Thrift Town added to its equipment will add to its productive power and to the income of its people during this year. If this $100,000 produces an average of 5 per cent on the investment, the total income of Thrift Town during the second year will be $1,005,000. There will be $5,000 more spent during the second year in Thrift Town than in Spendthrift Town.

If Thrift Town continues living on nine tenths of its income, spending the other tenth for permanent equipment during the third year, there will be a still greater difference in the amount spent in the two towns. Thrift Town will have a little over $1,010,000, whereas Spendthrift Town will still have its $1,000,000 to spend, and so on, year after year, the difference will grow greater and greater. It will not be so very many years under this policy before the young men and women from Spendthrift Town will be leaving that town and emigrating to Thrift Town, because business is more active and there is more employment at better wages.

If the figures for Thrift Town and Spendthrift Town are too large for us to grasp easily, we can simplify the problem by taking two individuals, A and B. Assume that they have equal incomes at the beginning, but A is thrifty and B is thriftless. Let us suppose that this year they have incomes of $2,000 each. A finds that he can live comfortably and efficiently on $1,800 and that he can invest $200 in some productive enterprise. If he is a farmer, he can buy an additional cow or horse, or some improved tools and machinery. If he is a business man, he can add somewhat to his stock or equipment. If he is a salaried man, he can deposit his $200 in a savings bank and receive 4 per cent on it.

The savings bank, however, cannot pay interest on this money unless it uses the money or lends it to somebody who can use it. Suppose it lends $200 to a farmer or a business man who buys additional equipment with it. In this case that $200 is spent just as truly as it would have been if A had spent it directly for luxuries. There are only two differences. In the first place, he spends it indirectly through the bank instead of directly. In the second place he spends it for producers' goods instead of for consumers' goods. In either case, next year A will have not only his $2,000 salary, but $8.00 interest on his investment, making a total of $2,008 to spend, whereas B will have only his $2,000 to spend, and so on. The difference grows greater every year. A will have more and more money to spend every year. He will do more for business and give more employment to labor than B will give.

This difference becomes enormous if we multiply the A's and B's by a hundred million. In other words, if our total population is made up of men like A, there will be a vast increase year by year in the amount of money we have to spend. But if our total population is like B, there will be no such increase in the amount of money we have to spend. Business will not expand; there will not be additional employment, calling for more and more men. It is for the average citizen to decide which kind of a nation this is to

be; that is, whether it is to be a nation of A's or a nation of B's,—whether our nation is to be an enlargement of Thrift Town or an enlargement of Spendthrift Town.

If, however, the thrifty man were sly and unprincipled as well as thrifty, he might, consistently with his slyness and lack of principle, discourage thrift. Being thrifty himself, he is not buying consumers' goods but investing in means of production with which to supply the demands of others for consumers' goods. The fewer there are doing as he is doing, the fewer competitors he will have. The more there are who spend all their money for consumers' goods, the more immediate customers he would have. Therefore, he might very consistently, though short-sightedly, argue as follows:

"There is already capital enough in the country (at least there is as much as I want to compete with my capital in my business), what we need is more consumers. If all the people of the United States should suddenly resolve to follow the course you have marked out and should carry out their purpose, the results would be disastrous in the extreme. What is left of the liquor business would be wiped out. The manufacture and the sale of all forms of tobacco would cease. The same fate would befall a multitude of other lines of business producing or dealing in luxuries or non-essentials of various kinds.

"As a consequence of these first effects many others would follow in their train. A situation somewhat like that which now prevails in this country by reason of the cancellation of government orders and contracts and the demobilization of the army,—only many times as serious,—would speedily develop. Merchants would go into bankruptcy by the thousands, manufacturing plants would close and millions of employes would be thrown out of employment. Of course, it would be possible to support the unemployed by taxing the rest of the community or by sale of bonds, using the proceeds as a temporary unemployment insurance fund. This would be a more or less demoralizing process, however, and the waste of it would be appalling.

"In the course of time, factories and stores could be adjusted to other lines of production or use, though the waste of specialized construction and equipment would be enormous. During a considerable part of the transition period, all the savings effected by the changed habits of the people would be consumed in supporting an idle population and in making necessary changes in the production instruments. Even when these physical changes had been made and opportunities for employment had been provided, it would take a long time to train the workers to their new jobs, if, indeed, many of them had not through idleness and dependency become unemployable. In any case, there would be a tremendous loss in the way of acquired skill rendered useless by the changes in the habits of consumers."

All this, however, would be obviously nonsensical because, as we have already seen, thrift consists in buying wisely rather than unwisely, and wise buying enables the people to spend more money than unwise buying. To buy something that does you no real good, does not put any more money into your pocket next month, next year, or the next generation. To buy something that is of permanent benefit, will give you or your children more money to spend in the future and you

will spend quite as much now as you could possibly spend if you bought foolishly. He who spends a dollar wisely does just as much for the labor and the business of the present moment as he who spends a dollar wastefully. Next year, however, the man who spent his money wisely this year, will have more dollars to spend, on the average, than the man who spent his money wastefully. Therefore, the wise spender will do more next year for business than the wasteful spender and quite as much this year.

The thrifty man is, in the long run, the man who buys and buys largely. The thriftless man is the man who never buys very much, because he never has very much money with which to buy. The way to insure large buying, on an increasing scale from year to year, a steady expansion of business, and a continued increase of employment, is to get behind the thrift campaign.

Remember that thrift consists in buying, but in buying wisely. Urge every one, if you please, to buy and to buy now, but URGE HIM TO BUY THINGS THAT WILL GIVE HIM MORE BUYING POWER NEXT YEAR AND EVERY YEAR.

Freedom Through Thrift

By William Mather Lewis

Director Savings Division, United States Treasury Department

WHO won the Great War? Thinking men are beginning to believe that the real answer to this question may not be forthcoming for ten or twenty years. They are realizing the fact that in the final reckoning success in reconstruction is a factor well nigh as important as that of success in battle. America may yet be the loser if she does not learn from the titanic conflict lessons that will make all she has suffered worth while.

Where there is no vision the people perish. America today faces the mightiest problems of her existence. Her chances of solving them lie in the power of her people to think straight and to act wisely and to see clearly through to the end. Her destiny lies in her vision. Nothing in all our history has revealed the American people to themselves as did the Great War. Then it was that we glimpsed the elements that go to make a mighty and enduring nation. One of these elements was revealed in the achievement of the nation in the great conservation movement directed by Herbert Hoover. We supplied our armies and our suffering allies with ample food by diverting to good purposes material ordinarily wasted or at best extravagantly used.

Again we found another element of strength in the popular financing of the war by millions of our people, the great majority of whom, before they patriotically interested themselves in Liberty Bonds, never realized that they could set aside any portion of their incomes for investment.

In the achievements of Herbert Hoover and in the success of the Liberty Loans, we see the sign-posts pointing to established victory, to national and individual freedom, and these sign-posts are marked Thrift. The vast majority of the American people have not been free; they have been weighed down with the shackles which make progress toward the goal of success painful and slow. Overhanging obligations, fear of old age, monotonous toil: these things have hampered us; these things have kept us strangers to freedom. Longfellow's "village blacksmith" typifies personal freedom: "He looks the whole world in the face for he owes not any man."

America, founded on the principle of freedom, has never made a concerted effort to interpret that word into terms of financial independence. Thus it has come about that while our individual earnings have averaged the highest of any nation in the world our average savings have been proportionately small. Set down in a land of unequalled natural resources we have, because of the ease of production, become criminally wasteful. Forests have been razed and no effort has been made to replace them; fields have been half cultivated, plows have been left to rust in the furrow. Thrift has been unpopular because we have felt that it was not necessary and because it has been confused with stinginess and smallness, qualities which our people hate. But in reality how different it is from the popular conception: thrift is care and prudence in the management of one's affairs, the foundation

upon which every successful and enduring business enterprise is based. This great principle has, however, been nationally ignored, despite the fact that a vastly increasing population has reduced our national resources to a startling degree.

During the war we caught the vision of the power of thrift. We accustomed ourselves to doing without; to buying carefully and using economically. Today the reaction from that policy is wide-spread and disturbing. A veritable orgy of extravagant buying is going on—reckless spending takes the place of saving; waste replaces conservation; demands for shorter hours and greater profits increase; and all this in the face of an appalling shortage of goods throughout the world.

One hope of righting these conditions lies in adopting the principle of thrift, whose value the war impressed upon us. Suppose that for a year, the American people would insist on getting a dollar's worth for every dollar they spent; suppose they used the material bought with care and intelligence; suppose that the first dollar out of every pay envelope was saved instead of being spent in thoughtless purchases, what would be the result?

Production would be given a chance to catch up with consumption, the high cost of living would be materially reduced, debts would be paid and every phase of our economic situation would be improved. More than that, we would be well on the road to winning the war by showing a strength and stability and intelligence which our enemies now believe lacking—a lack which they are counting on to enable them to win commercial victories over us in the markets of the world.

The Treasury Department in advocating national thrift is doing more than bettering individual conditions; it is strengthening the hands of our government—it is going far to complete the victory. That man who saves must learn to put his money aside in safe, productive investments. He must learn the principles of finance or his saving will profit him little. The Treasury Department, through its savings stamps and Treasury Certificates and Liberty Bonds, offers a means of investment sound and sure and profitable. More than that, it offers a means for every one of our citizens to become a stockholder in the government. A stockholder will not throw a brick through the window of his company or apply the torch to the warehouse. He will work to strengthen and to make it more prosperous. National thrift culminating in the steady purchase of government securities will go far toward answering the question, Who won the Great War? It will also put America well on the way to the realization of the finest conception of freedom.

Thrift as a Family and Individual Problem

Some Standard Budgets

By Benjamin R. Andrews

Teachers College, Columbia University; Assistant Director, Savings Division, United States Treasury Department.

THRIFT is a means to the best life for individual and family as it insures that considered use of resources which will promote well-being. There is a current idea that the thrifty man is stingy and penurious but rightly understood thrift means intelligence, forethought and plan in the use of resources, so as to promote personal well-being. In practice thrift calls for effective functioning on the part of the individual in the following economic relations:

1. As one who earns, by increasing skill or output so as to enlarge money income or its equivalent.
2. As one who spends, by studying one's present needs so as to secure goods and services bringing the greatest possible satisfaction at the least possible cost.
3. As one who saves, by examining one's future needs so as to set aside funds liberally for all its contingencies.
4. As one who invests, by considering the placing of savings so that they will grow by interest or by increase of value and yet so that principal and interest will be secure against loss.
5. As one who conserves whatever he has, by considering its wisest use so as to secure the greatest possible satisfaction from it, by avoiding waste, and by treating what is bought with money as though it had money's value. Thus there arises a five-fold thrift problem of the individual and family as regards earning, spending, saving, investing and conserving.

Thrift and Income

Thrift seeks to increase personal and family income, which fully considered involves several factors.

Money Income

Money currently received, whether from wages, salary, rentals, interest, or profits, is usually the only thing considered under the term "income," and these current money receipts are the most important element to consider in income. It is these which have attention in drafting a budget schedule of income and proposed expenditure which is, perhaps, the most efficient single measure for promoting personal thrift. Thrift asks certain questions concerning money income such as: Am I earning all the money I reasonably can? How can I increase my skill or output so as to receive more? Is there a possibility of additional money income not yet realized by members of our family? Ought we to be receiving an income on investments? Would it be economy to invest capital in education or special training to increase earning power?

Real Income

But "real" income, or the flow of satisfaction enjoyed from day to day, includes important elements not pur-

chased through current expenditure and meriting attention in any attempt to increase income. These additional factors in income include specifically:

(a) *Use-income*, or the equivalent of money income arising from the use of permanent consumption goods owned, such as the home and its furnishings, clothing, and other personal property, the pleasure car, etc. Thrift would seek to increase our use-income by asking and answering such questions as: Can we by directing expenditure toward better permanent consumption goods increase our real income through all the future? Shall we own our own home? Does it require different furnishings? What do we possess that our parents or grandparents by wise purchase secured as a satisfaction lasting for generations? Have we ever bought anything that similarly can be happily "handed down?"

(b) *Social income* received by individual and family through the use of goods and services furnished by the community and state, is another factor in "real" income. It includes such items as education, public health service, public recreation facilities. Some of these items are actually bought by expenditures in the form of tax payments, but many of them have long since been paid for, yet are still yielding social use-income to the individual and family. With regard to this factor in income, thrift asks: Do we realize the possibilities from available community services and goods, making them replace in part personal expenditures, for example, as regards music and books? Can the community supply us with other goods more cheaply than we can do it individually?

(c) *Labor income*, or the equivalent money value of unpaid services rendered by one's self and other members of one's family, particularly by the housewife, is an important contribution to the real income of a family. It often increases by 100 per cent or more through household processes the value of materials bought for household consumption. A family is supported in reality often as much by the unpaid useful work of the household as it is by the money brought in by the outside wage-earner. Thrift raises such questions as these: Have we regarded this factor of income at its real value? Can its value be increased by better housekeeping skill, by an investment in better household working equipment, by training children to coöperate in the household? Or in families where there are no children, is it possible to increase the family income by reducing or eliminating the contribution made by the housewife's work and substituting for it wages which the one so employed might secure through outside employment? Is it possible to increase the income by taking on certain productive activities in connection with the household, as a garden?

In short, the principles of thrift applied to the problem of income suggest a critical examination of all sources of income whether in the form of money, or of money's worth. Such an examination can best be made by a written schedule listing sources of income and amounts now received, including not alone money income, but also use-income, social income and labor income. Such a complete income schedule is a useful thrift device, in and of itself; the items of money income will, of course, be carried over into the budget of income and outgo.

THRIFT AND EXPENDITURE

In an urban civilization money is given in exchange for practically all

satisfactions so that rational spending means rational living. Thrift in spending seeks to increase the satisfaction from the use of money having in view all the interests of life and its future as well as its present needs. Much spending is done in a haphazard way on the impulse of the moment save as income limits expenditure and the relative costs of food, clothing, housing, etc., force an adjustment of spending along certain lines. Thrift substitutes a plan based on foresight and a candid examination of needs for an impulsive ill-considered spending.

GENERAL SUGGESTIONS FOR EFFICIENCY IN SPENDING

Written Budget Plans.—The study of standards of expenditure as found in the experience of others is helpful. Engel stated certain economic laws of consumption, the more important of which are that the smaller the income the larger the proportion of it which must go for food and that as income increases food expenditure relatively decreases and the allowance for miscellaneous culture wants increases. A widely quoted American standard for middle class incomes is "the ideal budget" of the late Ellen H. Richards which allows one-fourth of the income for food, one-fifth for rent, one-seventh for household operating expenses, one-seventh for clothing and one-fourth for culture wants or the "higher life." In the appendix are printed certain suggested standard budgets, but the individual must remember that such standards are suggestive only and that he must work out his own best division of income. Written budget plans for expenditure are a natural result of studying standard allowances. They should be based upon all the available facts as to one's own past experience in spending, modified by standard budgets so as to secure better distribution than one has been following.

Written accounts of expenditure, at least during periods of readjustment, are desirable. Needs for expenditure should have critical examination. The classical division of wants into necessities, comforts and luxuries gives a starting point. Another useful classification divides wants into those of self-existence, self-gratification, self-improvement and self-denial, or the provision for the future. Thrift would provide adequately for self-existence but only to a limited extent for self-gratification before making provision for self-improvement and saving. Future needs project themselves into the present whenever one thoughtfully considers the expenditure problem and lead to the provision for saving discussed below. Needs may well be classified also as regards the different members of the family group. For example, children need allowances for education, recreation, etc., and a nice allotment of available funds to meet the particular needs of each person in the family requires careful balancing of the factors involved.

Intelligent direction of spending will increase its efficiency. This function naturally centers in the housewife but often certain responsibilities may be wisely assigned to others. Increased special knowledge on the part of the spender is now possible when shopping information is available in printed form and courses in marketing are a part of extension teaching for adults. In a matter like the purchase of food, clothing, shelter and other goods in the market with which every individual has life-long contacts, it is astonishing that the general level of intelligence is not higher.

Social organization for thrift in expenditure is always possible and is being constantly tried in the form of neighborhood marketing clubs, coöperative stores and similar undertakings. As agricultural coöperation failed until the agricultural colleges began to train managers for shipping associations and other coöperative enterprises, so it is possible that consumers' coöperation will meet with success when better leadership is afforded. Economic conditions certainly favor such enterprises now as never before.

Thrift in Special Objects of Expenditure

The special objects of expenditure may well be examined in terms of the usual family budget divisions, food, clothing, shelter, household operating expenses and culture wants. Under each of these headings a few questions are given which may bring suggestions to the person reviewing his own expenditures with a desire of securing a better distribution of income and increased saving. Other problems will readily occur to such a person.

In food expenditure, thrift requires that the purposes of nutrition be adequately met, including the growth and maintenance of the body and the production of energy, and that this be done at a reasonable cost. It asks such questions as: Does each growing child have a pint or more of milk each day? Are necessary mineral constituents and growth-promoting vitamens provided? Is variety of diet guaranteed by including food from all five groups,—grain products, fruits and vegetables, meats, sugars and fats? Is there an adequate quantity to supply the calories for energy? Is there sanitary care and storage for food? Are there preventable food wastes? Do finicky food habits add to cost? Is food cost reasonable? Is quantity buying followed where practicable? Are stores selected for economy as well as convenience?

In clothing costs, thrift promotes economy by such queries as these: Is clothing chosen so as to promote health and secure length of service as well as "for looks?" Does fashion increase clothing costs beyond reason? Have you found the economy of choosing fabrics of intrinsic quality and standard designs and garments made up in a moderate mode which permit their use through several seasons until their entire value is secured?

In housing, thrift stands for adequate provision as to space, light, air, arrangement of rooms for ease in house work as well as to meet the personal and social needs of the family group. It raises such questions as: Is there any better investment than owning one's own home? Are we spending unnecessarily for display in the house? Have the children's housing needs had as full recognition as the social standards of the adults?

In household operating expenses, thrift demands adequate heating, lighting, water-supply and housekeeping supplies. It justifies hired service where the housewife has other useful employment or is unable to do all the work. It raises such questions as: Can supplies be bought cheaper in quantity? Is the heating and lighting system efficient and economical? Is the telephone justified, and if so, is postage a cheaper substitute for many toll calls? Do the members of the household coöperate fully in reducing the burden of daily household tasks which come upon the housewife or her hired substitute?

In culture wants, thrift emphasizes

their importance as compared with material wants and asks full provision for education, for personal development and for health, and reasonable provision for physical and mental recreation, for necessary expenses for personal care and for incidental needs. But thrift asks: Are large personal indulgence expenditures justifiable? Do they not give special treatment for one or more members of the family as compared with others? Is special musical or art instruction to an ungifted person wise? Should recreation expenditures exceed cultural expenditures of the sort which, for lack of a better term, are called educational and ethical?

THRIFT AND SAVINGS

Saving may be simply spending in the future—setting aside present income for future concrete needs which overshadow lesser present concrete needs. Or, saving may accumulate a sum such that its income alone may be used in the future, or even the income from savings may itself be saved and invested. Individual savings as a matter of fact are in large part permanently invested and never spent so that savings are a large source of the nation's capital, but in individual economy saving is ordinarily abstaining from expenditure now in order to make possible later spending. You would rather have an income in old age than go to the theatre every night now and so potentially recreative expenditure is transferred to the retirement fund.

DEMANDS WHICH ENCOURAGE SAVING

Thrift requires a definite facing of the chief future demands for which present saving is desirable, a determination of the amounts necessary to be saved, and definite plans for regular saving. Some of the chief needs for saving are the following:

Family group life brings occasional demands which call for previous saving, for example: the initial cost of setting up housekeeping; the special costs connected with children, their birth, their up-bringing, their education, launching in life and marriage; severe sickness of members of the family; care of dependent relatives; funeral costs.

Life in industrial society brings certain situations that require larger funds than current wages will supply and hence require saving. Such situations are entrance into trade or business; changing one's employment; interruption to earning through financial or industrial depression, through labor conditions, industrial accidents and other causes; the need of capital for use in independent enterprise, or industrial disability due to old age.

Saving to pay debts may be necessary: debts for past living expenses; mortgage payments on home or other real estate; payment of personal loans and debts as for education, sickness, etc. Debt paying in many cases is the obverse of saving. In saving we abstain from present spending to provide the cost of supplying future needs; in debt paying, we abstain from spending to provide the cost of supplying past needs. Debt paying for which one gets a permanent good in return, for example, paying a mortgage on real estate, is, however, really a form of investment. Saving for investment income may be undertaken for economic security, or to improve one's social condition by establishing a family fortune.

Expensive consumption goods may furnish the goal that stimulates saving, for example: buying a watch; expensive wearing apparel such as furs

or jewelry; special house furnishings, such as furniture of finer quality, pianos, phonographs, paintings, etc.; articles of recreation, bicycle, motorcycle, auto, horse, boat, guns and other sports equipment; special vacation expenditure as for travel, the purchase of the summer cottage; unusual gifts or contributions to church or philanthropic undertakings.

A general reserve fund, or saving for undesignated emergencies, is universally desirable. We have hit this need precisely by the old saw, "Save for a rainy day," and a modern philosopher has added, "Save, also, for the sunny opportunity." As a matter of fact everyone needs a reserve fund which is not pledged to any single need but is ready for any draft made upon it. Business men have come to recognize the absolute necessity of a reserve fund kept outside their regular business funds, usually invested in bonds, which can be used at once as collateral or cashed for funds in an emergency. The individual and the family need a similar reserve fund for it will contribute a sense of security and also the power to turn about in business affairs or in personal matters whenever the need may arise. The undesignated surplus or reserve should be the first great goal in saving. Its importance is not yet recognized by most people, but a moment's reflection shows the part it can play in living on a rational basis.

Savings and Insurance.—Some of the goals for individual or family saving are emergencies which can also be provided against by the joint method of insurance, for example, meeting the expenses due to sickness, or death. Sickness insurance is available, at rather high prices, it is true, for the person of small means; "burial insurance" or industrial insurance at 5 cents or 10 cents or more a week per person is now carried for children and adults alike by large numbers of families in narrow circumstances, and unwisely so, many critics believe. Insurance, when available, is usually considered to be a more economical provision than that of saving,—but each case merits separate examination; it may be cheaper, for example, for the wage-earner to carry burial insurance on himself alone, and to substitute for insurance on other members of his family a general reserve fund in which he makes deposits weekly. Individual saving and individual insurance are supplementary protective measures, both of which must be applied by the individual family to secure adequate financial protection and progress.

Social Insurance.—Compulsory social insurance to be provided at the joint cost of employer, employe and the state will, we are sometimes told, make individual saving unnecessary. A comparison of the social insurance program, namely, protection against the "four fears," of accident, sickness, unemployment and old age, with the partial list of goals for saving given above, disproves such an assertion. The progressive character of human wants, which will develop new future needs as fast as old ones are provided for, gives further fundamental testimony that individual saving will always be necessary.

A PROGRAM OF SAVINGS

A thrift program of savings should be drawn up by each individual and family, preferable as a written memorandum, in which after honestly facing the above and other needs, a decision is reached as to amounts which should reasonably be saved for such and such

purposes to be available at such and such times. This should be estimated as a certain requirement per week or month which should thereupon be made the first charge upon income whenever the pay envelope or salary check is received. By establishing the habit of saving regularly and of setting aside the savings in a bank account or elsewhere before one begins spending, one can become a successful saver. "How much can I save?" An answer for incomes of various amounts and families of various sizes is suggested by the savings allowances which appear as the first item in the standard budgets given in the appendix. Saving is a habit easily made automatic. The fact that life insurance premiums are met with comparative ease by most people because they are a regular recurring charge points the way to success in saving. In family economy thrift in saving as in spending can often wisely be made a family problem in which all members of the family participate in making the necessary plans and helping in their execution.

THRIFT AND INVESTMENT

The successful investment of savings requires continued attention as well as does the accumulation of savings. A few points regarding thrift and investment may be suggested here:

Use local investment institutions and opportunities; make your banker your adviser; patronize your local building and loan association, and your local savings bank; local real estate where you know conditions is a safer investment than distant property. If you do invest elsewhere use only established institutions such as investment houses which your local banker will recommend.

Plan a progressive investment program. Start savings in government savings stamps or in your local savings bank. When you have $50 to invest, put it in a government bond. When you have $500 to place, government bonds may still be your best choice, or some other safe bond that pays slightly more. Stop paying rent and begin buying a home, through partial payments to a building association, if necessary, thus capitalizing rent payments gradually into house ownership.

If you invest in securities, buy only safe investments such as high class bonds. The average man should not invest in stocks. Be content with a lower income from an established safe undertaking rather than chance your savings in untried enterprises. Government bonds will be the backlog to personal investment for the present generation. Hold all your own and buy more. Do not sell securities because of an emergency need for money; rather borrow on them as collateral and then save and reclaim your securities.

Do not invest in a friend's business. Friends should find accommodations through banks and other established channels; you should put out your money through similar channels. Do not involve your life insurance in business or other investments by borrowing upon it. By curbing your desire to speculate and investing only in safe enterprises you can certainly accumulate a competence. If you are not willing to take this safe path, adopt the safety first principle of keeping 75 per cent of your personal capital in safe investments and restrict speculative investment to the remaining 25 per cent of your accumulation.

Watch interest returns carefully. Do not lose possible interest, for exam-

ple, by withdrawals from a savings account before the interest date or by delaying deposits beyond that date. Redeposit interest as soon as received so as to compound it. Determine the actual yield upon the proposed investment and change investments when you can legitimately take advantage of an increased yield, but remember that a guaranteed average rate as on bonds is better than a possibly higher rate of interest as on stocks.

Take care of your securities. A safe deposit box is cheaper than possible loss. A written record of securities reviewed occasionally is a stimulus to increasing your investment. Follow expert advice but do not follow tips. Learn to discount fraudulent financial advertising.

THRIFT AND CONSERVATION

Things bought with money are a storehouse of services which they can render to their owner. Skill in earning, saving, investing and spending, does not completely guarantee economic well-being unless there is added to it intelligent and thrifty use of property owned. Thrift in the use of things excludes personal waste in consumption. War required the conservation of food and all objects of personal use, and such standards widely adopted and made permanent are an additional basis for individual welfare, since everyone wastes enough to provide some other thing desired but not yet secured.

Thrift demands the application to personal property of business standards for repairs and replacements necessary to maintain efficient service. For example, a car well kept up not only renders better service, dollar for dollar, to its owner but maintains its investment value. Thrift requires the covering of possible loss by insurance as fire, burglar, and other types. Thrift in conservation emphasizes the importance of good quality in merchandise or other material things acquired. The cost per unit of service secured decreases as length of service increases.

APPENDIX

Suggested Standard Budgets for Families and Individuals

The following standard budgets were recently prepared under the general direction of the present writer for the Savings Division of the United States Treasury Department. The chief credit for them is due to Mrs. Alice P. Norton, editor of the *Journal of Home Economics*, who was ably assisted by Miss S. Maria Elliott of Simmons College. Acknowledgment should also be given for the advice and suggestions of many of the foremost home economists in the United States.

SUGGESTED FAMILY BUDGETS $1,200 TO $5,000 A YEAR

$1,200 A YEAR—$100 A MONTH

	Number in the family			
	Two	Three	Four	Five
Savings	$10	$7	$5	$3
Rent	16	16	16	16
Food	27	34	41	48
Clothing	13	14	15	15
Housekeeping expenses	10	9	8	7
Church, charities	6	5	3	1
Health, recreation, education	10	8	6	5
Personal, miscellaneous	8	7	6	5
Total for month	$100	$100	$100	$100

$1,800 a Year—$150 a Month

	Number in the family			
	Two	Three	Four	Five
Savings	$27	$21	$15	$10
Rent	20	20	22	22
Food	37	44	51	58
Clothing	20	20	21	22
Housekeeping expenses	11	12	12	12
Church, charities	10	9	8	7
Health, recreation, education	12	12	10	10
Personal, miscellaneous	13	12	11	9
Total for month	$150	$150	$150	$150

$2,400 a Year—$200 a Month

	Number in the family			
	Two	Three	Four	Five
Savings	$48	$40	$31	$21
Taxes (Federal income)	2	1	..	..
Rent	25	25	27	27
Food	40	48	56	64
Clothing	22	25	28	30
Housekeeping expenses	18	20	20	20
Church, charities	15	12	11	11
Health, recreation, education	14	14	13	13
Personal, miscellaneous	16	15	14	14
Total for month	$200	$200	$200	$200

$3,000 a Year—$250 a Month

	Number in the family			
	Two	Three	Four	Five
Savings	$65	$53	$40	$30
Taxes (Federal income)	5	4	3	2
Rent	30	30	35	35
Food	40	48	56	64
Clothing	30	33	36	39
Housekeeping expenses	25	30	32	32
Church, charities	19	17	16	16
Health, recreation, education	18	18	16	16
Personal, miscellaneous	18	17	16	16
Total for month	$250	$250	$250	$250

$5,000 a Year—$416.66 a Month

	Number in the family			
	Two	Three	Four	Five
Savings	$125.66	$105.66	$90.66	$76.66
Taxes (Federal income)	15.00	14.00	13.00	12.00
Rent	50.00	50.00	60.00	60.00
Food	45.00	55.00	65.00	75.00
Clothing	45.00	50.00	55.00	60.00
Housekeeping expense	50.00	60.00	63.00	65.00
Church, charities	36.00	33.00	27.00	25.00
Health, recreation, education	25.00	25.00	22.00	22.00
Personal, miscellaneous	25.00	24.00	21.00	21.00
Total for month	$416.66	$416.66	$416.66	$416.66

SUGGESTED INDIVIDUAL BUDGETS $15 A WEEK TO $1,800 A YEAR

$15 a Week, or $65 a Month, or $780 a Year

	A week	A year
Savings	$ .25	$13.00
Room and board	8.00	416.00
Lunches	1.50	78.00
Carfare to business	.60	31.20
Clothing	3.00	156.00
Laundry	.45	23.40
Church, charities, gifts	.20	10.40
Health, recreation, education	.75	39.00
Miscellaneous	.25	13.00
Total	$15.00	$780.00

$17.30 a Week, or $75 a Month, or $900 a Year

	A week	A year
Savings	$1.00	$52.00
Room and board	8.00	416.00
Lunches	1.50	78.00
Carfare to business	.60	31.20
Clothing	3.50	182.00
Laundry	.50	26.00
Church, charities, gifts	.50	26.00
Health, recreation, education	1.00	52.00
Miscellaneous	.70	36.40
Total	$17.30	$899.60
Balance for extra Thrift Stamps	.....	.40
		$900.00

$23.08 A WEEK, OR $100 A MONTH, OR $1,200 A YEAR

	A month	A year
Savings	$12.00	$144.00
Federal income tax	1.00	12.00
Room and board	40.00	480.00
Lunches	8.00	96.00
Carfare to business	2.60	31.20
Clothing	16.75	201.00
Laundry	3.25	39.00
Church, charities, gifts	4.40	52.80
Health, recreation, education	8.00	96.00
Miscellaneous	4.00	48.00
Total	$100.00	$1,200.00

$34.60 A WEEK, OR $150 A MONTH, OR $1,800 A YEAR

	A month	A year
Savings	$30.00	$360.00
Federal income tax	4.00	48.00
Room and board	45.00	540.00
Lunches	11.00	132.00
Carfare to business	2.60	31.20
Clothing	25.00	300.00
Laundry	4.00	48.00
Church, charities, gifts	10.00	120.00
Health, recreation, education	12.00	144.00
Miscellaneous	6.40	76.80
Total	$150.00	$1,800.00

The Insurance of Thrift

By John A. Lapp

Managing Editor of *Modern Medicine;* Educational Director, National Catholic War Council

THERE is probably no one who doubts the value of saving both for its results in character and the material security which it brings to the individuals who have succeeded in accumulating property. The thrifty individual is more likely to be a good citizen than the unthrifty, and he is more likely to be able to take care of himself and his family in the ordinary course of life. On the other hand, it is equally clear that the narrow type of thrift advocated by some, does not always make good citizens, nor result with certainty in the safeguarding of the individual and his family particularly in the emergencies of life.

The Nature of Real Thrift

Thrift which develops selfishness, and which sacrifices the physical and moral welfare of the individual will increase the hazards of life, especially those of sickness and dependent old age, and decrease the relative power to overcome them. A recent advertisement in one of our large cities flared forth the message to the working man that the first payment from the weekly wage should be made to the savings account. This statement plainly ignores fundamentals and gives an erroneous idea of what thrift really is. It is axiomatic that the worker and his family must be sustained in vigorous health as the first consideration. If wages are high enough to allow savings after the needs of the family are met, it is an act of thrift to put money into a savings account, otherwise it is the negation of thrift. To encourage men to save at the expense of milk for the babies, or adequate nourishment for the worker and his family is to encourage destructive selfishness which should be condemned by those who put permanent social interests above present pseudo-thrift.

This observation will help to define thrift as used in this article. Mere accumulation of property is not thrift as here used. A savings account or the purchase of a home is not necessarily a sign of thrift as here understood. If a worker has borrowed from his fund of physical energy to put money in a savings account, it is a disastrous form of thrift; he has merely taken a part of his vital resource and turned it into property. If a worker saps his physical power for the sake of a money savings, he will soon exhaust his physical bank account.

Thrift is broader than mere saving. It is to the individual what conservation is to the nation. It does not consist in hoarding resources, but rather in their wise use. The weekly wage properly spent is thrift, even though not a penny may have been put into a savings account or the purchase of a home.

The thrifty person will spend his income to meet certain definite needs in about the following order:

First, he will provide for himself and his family the necessities of life and such comforts and luxuries as will sustain himself and

his family in the best physical condition, and will take advantage of opportunities which will increase his competence.

Second, he will look after the health and moral welfare of himself and his family, and expend such sums as will safeguard them against physical and moral decay.

Third, he will provide against the calamities of life, namely unemployment, accidents, sickness, old age and dependency of his family in the case of his death. Then, if there is anything left over, it may properly be used for what is generally denominated as thrift, and for such additional pleasures as he may choose.

Absolutely nothing can be spared from the first necessity as stated above. To sustain the working power of the individual and the physical welfare of his family are paramount to every other consideration. Scarcely of less importance, although materially not so pressing, is the safeguarding of the morals of the worker and his family. It may be said that thrift is specially designed to meet the third requirement, namely protection against the hazards of life. It will be the purpose of this paper to show that thrift by itself cannot provide for the rank and file of men against these hazards.

THRIFT AND THE HAZARDS OF LIFE

The advocates of individual saving as a means of providing against the hazards of life seem to go on the theory that these hazards confront every one in like degree. They ignore the unequal distribution of the burden which the contingencies of unemployment, sickness, accident, old age and death throw upon certain people. They seem to conceive of life from the standpoint of those few individuals who escape the serious disasters which these contingencies of life bring.

If we could assume that all human beings were born with equal physical and mental stamina; that they were given an adequate preparation for life; that they never had to go without work for a great length of time; that they never had sickness of more than a few days duration; that they could hold their positions as long as they lived; that they will not live for an extended time beyond the point when they are compelled by advancing years to quit work; and that they will not die at a time when small children call for protection, we could rely upon individual thrift to provide for our wants throughout life. But life is not lived that way by the majority of people. Some are born with physical or mental weaknesses; some are handicapped by accidents or diseases in early life; some have sickness either of the worker or members of the family lasting months or years; in periods of depression some may be out of employment for months; large numbers live many years beyond the time when they can earn their living; while thousands die in the prime of life, leaving helpless dependents. Still others, from one calamity or another, such as fire, business failures, bank failures, and stock swindlers, lose the accumulation which they may have saved to meet life's contingencies. Mere saving by itself cannot provide safeguards against the overwhelming character of one of these many disasters that may come to the thrifty and thriftless alike. Individual thrift, as usually understood, cannot

provide for these calamities because none of these calamities can be measured in the life of an individual.

No one can tell the extent to which one of these calamities may affect him. One cannot tell whether he is to be sick six days or six months during the coming year, or how many months unemployment may be forced upon him by business depression, or know the length of his years beyond working life. These are uncertainties which can be measured for a large group of people but which cannot even be approximated for a single individual.

A man may, by saving, accumulate $10,000 and see it all swept away by a single prolonged illness. A thrifty couple may provide themselves with a home, but at sixty-five they cannot be assured that it will protect them for the three or the thirty years which they may yet live.

CAUSES FOR ECONOMIC DEPENDENCE

Sickness.—Let us examine some of the hazards of life in greater detail. Sickness is the most calamitous of the hazards of life. A large part of our troubles find their roots in sickness. More people are doomed to economic dependence and destitution by sickness than by any other cause, or in fact by all other causes combined. Sickness picks its victims at random, sparing neither rich nor poor, thrifty nor thriftless. Yet the total amount of sickness is easily measured.

We know from innumerable statistical data that the average sickness for all working people will be about nine days every year. Now, if the total sickness were distributed evenly, nine days to each person, ordinary thrift could take care of the problem. If each man expects to lose nine days by sickness each year, he could lay aside a sum equal to nine times his daily wage and an equal amount to pay for medical care and he would thereby have a fund equal to the amount which he loses on account of sickness. It is absurd, however, to talk in terms of average amounts of sickness, and draw conclusions therefrom. Sickness does not distribute itself nine days to each person. Many escape entirely; a large part of those who are sick are disabled from working for only a few days. Some are sick for weeks, others for months, while a considerable number are disabled for years.

Instead of being distributed nine days to each person, the distribution in an ordinary year will be as follows: 80 per cent of the workers escape serious sickness; 20 per cent suffer the entire loss in a given year. Of the 20 per cent who are sick, 65 per cent are sick for less than four weeks; 20 per cent are sick from four weeks to eight weeks; 7 per cent are sick from eight to twelve weeks; 6 per cent from twelve to twenty-seven weeks, 3 per cent for more than six months, and 1.3 per cent for more than a year. Applying these figures to the United States we find that of the thirty-eight million people engaged in gainful employment, the chief burdens of sickness for a year, excluding the insane, defective, and institutional classes, are borne by 7,600,000 workers. Of these, 4,940,000 are sick for less than four weeks; 1,520,000 are sick from four to eight weeks; 532,000 are sick from eight to twelve weeks; 456,000 are sick from twelve to twenty-six weeks; 228,000 are sick for more than six months, while 98,800 are

sick for more than a year. The existing figures do not show us the number who are sick for more than two years or who are permanently disabled.

The distribution of medical cost tells exactly the same story. The bulk of families escape, while the burden falls disastrously upon those who happen to be sick for the longest periods and, of course, it falls at the time when the victim is least able to bear it. The conclusion from these figures is obvious. Ordinary individual thrift may provide against sickness for those who are disabled for short periods. It cannot provide against the calamity of a three, six, nine, or twelve months' sickness, which the figures indicate is suffered by more than three-quarters of a million working people every year.

Unemployment.—The same story may be repeated with regard to unemployment, particularly in the great centers of population. Men cannot know whether the wheel of fortune is going to bring them continuous employment or whether they will be compelled to wait for weeks or months for the chance to earn a living. Periods of depression such as those of the winter of 1908 and the years of 1914 and 1915 compel thousands in industrial centers to use up the little savings which they may have or to depend upon friends or upon charity.

The calamity of unemployment is not so wide-spread, nor so severe as that of sickness. It affects primarily the wage earners in the larger centers. Rural communities and small towns escape acute manifestations. The small owner or operator is not immediately affected. Moreover the loss is merely of wages, whereas in sickness, the loss is doubled through the cost of medical care. A savings account will help in this as in any other emergency but it should not be relied upon to meet the uncertainty.

Accidents.—The calamity of accidents falls also at random on the workers but the need for the distribution of the burdens, and the need for the distribution of the employer's liability have been so obvious that 42 states have already passed workmen's compensation laws for industrial accidents, under which the economic burden is taken from the backs of the injured workers and distributed over all of the people. Thrift failed to meet the calamity of accident because the individual risk was not measurable. Insurance was applied to measure the risk for the group and ease the burden for the unlucky individual who was injured.

Old Age.—When we come to the discussion of individual thrift as a provision for old age, we consider a hazard far more indeterminable for the individual than sickness, unemployment, or accident. The hazard of old age really involves all of the other hazards. If a man escapes serious illness and accident throughout life, both of himself and his family, and escapes long periods of unemployment, and has been thrifty and likewise possessed of business ability enough to safe-guard his thrift, he may have enough to meet the hazard of old age whether he lives one or thirty years beyond the time that failing physical powers compel him to quit work. Few, however, do escape one or another of the calamities of life, and the great majority approach old age with the necessity of relying upon their children or upon private or public charity to take care of them in their last years.

When a man has worked through life for meager wages, perhaps scarcely sufficient to maintain physical vigor, and from these meager wages has been compelled to meet individually the cost of sickness, accidents, and unemployment, he is not likely to be possessed of any considerable amount when he reaches the age of 65, even though he be possessed of unusual qualities of thrift. The hazards of life prevent the majority from remaining independent in old age. Figures gathered by the Ohio Health and Old Age Insurance Commission indicate that among 500 old people in private institutions for the aged, 40 per cent were there on account of previous sickness; 19.6 per cent on account of misfortune; 12 per cent on account of intemperance; 11.8 per cent on account of low wages; 10 per cent on account of improvidence, and 5.8 per cent unknown. Similar figures for 1,600 inmates of county infirmaries indicated that 36 per cent were there on account of sickness; 11 per cent on account of improvidence; 29 per cent on account of intemperance; 11 per cent on account of low wages, and the rest unclassified.

As indicative of the way in which people lose money, it was found that among 150 former property owners, 70 had lost their property by business failure; 61 by poor investment; 17 by bad loans; 2 by illness and 9 by improvidence. These figures are merely illustrative of the hazards which must be met before reaching old age.

If we could assume that many people escape all of these hazards, and have at 65 years of age a small competence, we then come to the real hazard of old age. Most of the people at 65 are no longer employed. They must depend, therefore, upon their savings of former years. A few may have small business or farm interests which they continue to guide; a few skilled and professional workers remain in employment beyond this age; unskilled laborers and also many skilled laborers have practically no employment. Those who have a small competence as well as those who have not, are faced with the problem of providing for an uncertain length of years.

Half of the people 65 years of age will live to be 75. Of those who reach 75, half will live to be 81; and of those who reach 81, half will live to be 85. In a group of 10,000 people at 65 years of age, 5,000 will live to be 75; 2,500 will live to be 81, and 1,250 will live to be 85. It will be observed that a large number of aged people live more than twenty years beyond 65. A goodly number live beyond 90 and 95. The small savings at 65 must be spread over a possible span of one to thirty years to take care of the aged person. If the savings are large enough so that the income will provide annually for expenses, he is secure for the rest of his life unless of course the rising costs of living reduce the value of his income. In such case, he does not dare use any part of his principal because the principal is his safe-guard against dependency if he happens to live for many years. If he uses his principal he may later become dependent. If he depends upon the income, even if it is sufficient for the time being, his life is one of uncertain, if not precarious, independence. The logical way for him to manage his affairs is to combine with his fellows through the medium of insurance to buy himself an annuity for as long as he may

live. The individual cannot measure the hazards of old age for himself, but the group can measure the hazards for the whole because it can be figured exactly how much money is needed to pay a certain sum to the survivors in the group.

INDIVIDUAL THRIFT SUPPORTED BY INSURANCE

We are faced then in the determination of thrift with several other important considerations:

(1) The question of thrift is bound up with the question of wages. There can be no real thrift without adequate wages. (2) The saving of money should not be encouraged to the detriment of physical and moral stamina. (3) The calamities of life for the great majority cannot be provided against with certainty by individual thrift. (4) The hazards of sickness, accidents, unemployment, and dependent old age, while not measurable for individuals are measurable for groups. (5) Individuals, by combining together through insurance are able to distribute the extra burdens of life in such a way as to prevent individual calamity and thus enable one to provide by normal savings against abnormal contingencies.

Individual thrift is building houses upon sand unless supported upon the foundation of insurance. Individual thrift will help in normal contingencies, but will be of slight assistance, except in rare instances, in those serious calamities which should receive most careful consideration. The application of the insurance principle in the safeguarding of thrift is the obvious solution of the problem. But this cannot be done by relying upon private initiative and enterprise. All experience shows that the bulk of the people are not forehanded enough to see the necessity for insurance. The great majority are fatalists in such matters as sickness, accident and dependent old age. Moreover private insurance increases the cost abnormally because of the expense of securing and maintaining business. From 50 per cent to 60 per cent of the premiums from casualty insurance go to the private owners for management and profit, and even greater per cents of premiums in burial insurance go for the same purpose. Purchasers of old age annuities pay large toll to private insurance companies. It is entirely wrong to attempt to safeguard thrift by compelling thrift to pay tribute to private profit. It is plain logic to suggest that thrift be safe-guarded by means of public, mutual, social insurance. It is the practical business-like way. Such insurance is collective public thrift. Business provides a depreciation fund for plant and machinery. Society should form a depreciation fund for human values. The fact that scarcely any of the hazards of old age and unemployment, and not two per cent of the hazards of sickness are provided against by insurance at present, indicate that existing insurance agencies are not solving the problem. The example of almost universal accident insurance for workmen in industries points to the proper solution of the problem.

The Nation's Call for Thrift

By Frank L. McVey
President of the University of Kentucky, Lexington, Kentucky

IN the older days of railroading a sign stood guard at every crossing on which were the words, "Stop, Look, Listen." Evidently this positive command has been forgotten in railroad circles, and elsewhere for that matter, for the traveller is now informed that it is a railroad crossing which he is approaching, the "Stop, Look, Listen" being taken for granted as part of the functioning of a reasoning human being. Pretty much the same attitude appears to be the rule in other departments of activity. Everywhere are advertisements setting forth the attractiveness of goods and nicknacks as the desirable things to exchange for money. So the world goes on piling up consumption goods and the people buy without thought of the future. It is in reality high time to put up the sign "Stop, Look, Listen" over every door in the land.

Perhaps such a statement needs explanation. It may even appear dogmatic—it probably is—but the purpose of an opening paragraph is acknowledged if attention has been attracted to the real import of the statement. In the face of the demand for higher wages, more rents, larger prices and all the rest of the phenomena now familiar to the student, every citizen is demanding more in order that he may meet the cost of every day living. This in itself is the natural way out of personal difficulties, but when multiplied by thousands of instances, the mass of people are no nearer the end of their troubles than before. In fact, new demands leave the problem just as unsolvable as before.

Production the Basis of Prosperity

It hardly seems necessary in the Year of Grace 1919, to set forth the simple principle that production of goods for human needs is the only way in which human wants, and as a consequence, higher wages and better living, can be met. Yet all the evidence points to the conclusion that the principle has been forgotten. More wages in money will help one person, why not the same for all?

When Robinson Crusoe sat in his cave inventorying his possessions, he came upon a bag of gold in a great sea chest. Looking at the gold sovereigns so worth the while in civilized England, he gave utterance to the remark, so Defoe tells us, "Sorry, worthless stuff." And it was to him. He couldn't buy anything with it; he couldn't use it in any way that he thought worth while; there were no human beings who were willing to exchange it for goods, because other people would take it from him for their goods. So it laid in the chest forgotten for years. Our civilized societies are in the reverse conditions. Men have money, but the goods are not there in the quantity necessary for the needs of the world. Strikes are not likely to produce more goods, and extravagance in their consumption will not bring them into existence. Where then are we?

The agencies of production are labor, capital, land and management. No prolonged endeavor can go on for any

great length of time without all of these agencies. Labor must have food, but food requires labor, land and capital for its production. Only in the last 100 years has the world accumulated any great quantity of capital, and no inconsiderable amount of that has been wiped out by the Great War. The disasters of nature dog the steps of man, and place heavy burdens upon him. The pests destroy his crops, and winds drive his fleets on rocky shores. Against all of these, he struggles bravely and hopefully. The War, however, has swept some countries bare; billions of capital have been destroyed, and millions of lives were given over to the god of war. The impress of all of this has not yet been made upon the world. We must come to thrift, economy and hard work to restore the world to the place where it was in the year 1914.

THE CONSUMPTION OF WEALTH

Growing Demand for Consumption Goods

With some danger of repeating what has already been said, it is worth while to rub the lesson in. We must grasp the idea that man is not free to go on indefinitely consuming; he soon encounters powerful influences, which work against the increasing of product without increased labor, effort, more capital, and better organization. "The more food and clothing, fuel, and other material goods we require, the further we have to go for the material, and the harder it is to get; we must plow inferior lands yielding smaller crops, we must sink deeper shafts for our coal and iron. As our population grows ever larger, and this larger number wants more and more pieces of the earth to feed its machines and turn out the increased quantity of goods, the drain upon the natural resources is constantly increasing. The material world is limited; in time, nature will become exhausted, and long before this happens, the quantity of human labor required to raise the increased supply of raw material in the teeth of the Law of Diminishing Returns will far exceed the economies attending large-scale production."

The population of the United States is now more than 100,000,000. From the point of view of consumption and the supplying of wants, this means a great and growing demand for foodstuffs, higher land values, smaller exports of food products, and larger imports of materials for manufacturing. Progressing at this rate the growth of population in the United States will necessitate the taking up of the waste places and the introduction of an era of intensive cultivation with higher efficiency in production. Conservation of natural resources also must reach the stage of an economic necessity, and interest in that subject will no longer be deemed a fad as is often the case at present. But against this necessity of labor is the constant retarding forces of nature, and the foolish tendencies of men to fritter away their patrimony.

Consumption by Forces of Nature

From time to time a vast amount of wealth is destroyed by storm, fire, and flood. A tornado on the Great Lakes and the east coast of the Atlantic not long ago drove hundreds of vessels ashore, drowned many men and destroyed valuable cargoes. In 1913 a storm on the Japanese coast, accompanied by a volcanic eruption, killed thousands of people and destroyed the property of many more. The report of the engineering division of the War Department states that the annual loss from floods in the United States aver-

ages $50,000,000, and in the Ohio flood in 1913, the loss to railroads, cities, and private individuals amounted to hundreds of millions.

Losses by fire add to the appalling aggregate of wealth destruction. In the year 1916 the fire losses in the United States amounted to $168,905,100, and despite the efforts of the insurance companies and other agencies to limit the size and frequency of fires, the absolute amount of waste has declined but slightly. The newness of some parts of the country, the absence of regulations for building in many places and the failure to provide first-class protection against fires, gives the United States a per capita fire loss which is from five to six times as large as that of any of the leading European countries.

Irving Fisher, in estimating the cost of the annual charge against the country for illness, places the figure at $1,000,000,000. Probably $660,000,000 of this cost is attributable to tuberculosis alone. Dr. L. O. Howard, Chief of the Federal Bureau of Entomology, says that malaria alone costs the country $100,000,000 annually, while Dr. George M. Kober of Georgetown University, thinks that $350,000,000 is a conservative estimate of the annual loss from typhoid. Diseases of plants and animals cause losses of millions of dollars every year by destroying products or impairing their value.

Consumption by Acts of Man

It is essential that some comment be made upon the acts of men themselves which affect the consumption of wealth, as distinguished from the acts of nature. The European war furnishes the most forceful instance in all history of the destruction of wealth through force. Among the direct costs of the war are to be enumerated loss of property, cost of the army, seizure of raw materials, and other direct losses to governments and cities. The indirect costs include losses of agricultural and industrial production, of interest on investments, of earnings from shipping and banking and of profits of insurance and mercantile houses amounting to billions of dollars.

An economic depression due to the destruction of capital and wealth invariably follows war and causes a scarcity of food that brings about more deaths than the actual fighting. The fact is that even in civilized lands the resources of many are so scanty that an increase in the price of bread falls heavily upon the population.

In direct contrast to the expenditures for war are the amounts which are spent by governments, individuals and private associations for social amelioration and betterment. These comprise two classes; compulsory and voluntary expenditures.

The first class includes the outlay for expenses incurred by the different divisions of the government for services, such as the salaries of civil servants, police, soldiers, and judges and those for the general conduct of government. Military and naval defense is included in this group. Postoffices, telegraph lines and railroads, when owned by the government, supposedly pay for themselves, since the users return the cost of service.

Voluntary expenditures include the outlay for countless social and philanthropic agencies, both public and private. At one of the meetings of the American Academy of Political and Social Science, according to the American Year Book, for 1913 (p. 46), the art of giving was discussed as an exact

science. The reader of the paper declared that in 1912, perhaps the most notable year, gifts totaling nearly $267,000,000 were reported by the press, and that for the twelve years preceding, the annual total of notable gifts had exceeded $100,000,000. This statement tells something of the extent to which consumption for social purposes may be carried voluntarily.

The latest estimates of the yearly consumption of liquors and tobacco in the United States reach the enormous figure of $2,830,000,000. Of this sum $1,200,000,000 is spent for tobacco and $1,630,000,000 for malt and spirituous liquors. The total gives an almost incredible per capita figure of $28.00. In the fiscal year 1916, there were withdrawn for consumption in the United States 136,000,000 gallons of distilled liquors and a little more than two billion gallons of fermented liquors. Our consumption of coffee, tea and sugar has come to surpass that of any other nation, and they have been made a part of every family's diet. By unthinking individual consumption the magnitude of the social burden is materially increased. When a goodly portion of the individuals' consumption is governed by habit, the charge becomes practically fixed.

The nation's drink bill is often compared with the cost of government, but the nation's tobacco expenditures, while not so large as the liquor cost, were four times the amount spent on the Army and Navy before the war, and then, too, through the carelessness of smokers, thousands of dollars worth of property is destroyed each year. The amount spent annually for tobacco is three times the cost of the Panama Canal.*

FACTORS AFFECTING INDIVIDUAL EXPENDITURE

Social Custom—The standard of dress affects taste and cost. What is termed fashion has come to set standards of living in food, clothes, and housing. Conformity to these standards is looked upon as a test of social standing, and thus the modern society is bound in many ways by the restrictions and limitations it places upon itself, which in turn affect individual expenditure.

For several years the public prints have been filled with comments upon the rising cost of living. The cartoonists have exercised their skill in depicting in humorous fashion, the ideas in vogue about living and its costs. The higher cost of living as compared with earlier days is due to a rising standard in the common life of the people, seen in better housing, more attractive clothing, higher qualities of food, and in the larger variety of amusements demanded by every class of the population.

Pressure of Population on Food Supply—In addition to the rise in the standard of living, there is another and more immediate cause for the increase in the cost of living, which is to be found in the pressure of the population upon food supply. Agricultural products have not grown in quantity commensurately with the needs of the population. The number of cattle has decreased not only in proportion to the population, but absolutely; in the past five years the increase in tilled acreage was 9 per cent and the increase in population 14.5 per cent. The United States, once a great wheat exporting country, now uses in normal times practically all of its grain for home consumption. These facts point to a rising demand without a corresponding

growth in product. The result is, as a matter of course, higher prices.

Change in Value of Money—Besides the influence of under-production upon supply, there is another, that of the money standard, which during the past twenty years has been changing in value under the influence of increasing supplies of gold and securities. In like manner an enlarged credit, due to the material growth of the basis of credit, gold, has had its influence upon the purchasing power of the dollar, with the result that the dollar is not now able to command in return as great an amount of commodities as formerly.

THE NEED FOR INCREASE IN CAPITAL

Read in the light of the present, this is an overwhelming category of consumption in a civilized society. It is bad enough in normal times. To it has been added individual prodigality, the refusal of labor to work as of old, and the very discouraging burden of war expenditures. In a recent speech before the House of Commons Lloyd George said: "The aggregate direct cost of the War was $200,000,000,000. If 40,000,000 able-bodied young men were to take holiday and be withdrawn from the task of production for four years, and if during that period £1000 were placed at the disposal of each, you would have some sort of notion what a war on this gigantic scale means." Dr. Rowe, formerly assistant Secretary of Treasury, said: "It is evident to every student of the world situation, that the sum total of productive goods, raw materials, tools, implements, machinery, etc., is today insufficient to meet the pressing needs of mankind. The amount of available capital at any one time is limited, and at no period in the life of this generation has it been limited as at the present moment." "The fate of Europe is balanced on a knife edge," wrote Mr. Frank Vanderlip recently. There is only one way out, and that is saving, and with the capital so created, produce, produce, produce.

The world is poorer, much poorer than it was in 1880. The generation now coming on, faces a less pleasing prospect than the one that is passing. What is more disturbing is the lack of habits in the new generation for hard work, and thrift. Faced with the most serious problems, the hope of the world is to be found in a productive people, who know how to produce, who appreciate the great power of thrift, and who are willing to forego the pleasure of the present because they know that capital is the result of saving, and that labor without capital is a blind man groping in the dark. The times call for all of us to "Stop, Look, Listen," and having done that, to work and save.

Wealth, Income and Savings

By David Friday
University of Michigan, Ann Arbor, Michigan

The Measure of National Thrift

THE thrift of a nation is measured by the excess of its production over its consumption. This excess constitutes the nation's savings. In arriving at any statistical measurement of the ability of the nation to save, the starting point must, therefore, be the nation's product. This is commonly called the national income. It consists of all commodities and services brought forth within the country during the period chosen as the statistical time unit. The excess of this product over the customary minimum of living measures the ability to save. What we need, then, in arriving at a statistical estimate of the saving power of a nation is first of all as exact a notion as possible concerning the size of the national income; and second a comparison of our present national income with that of the past.

National Wealth

Unfortunately, at least from our point of view, much greater attention has been given to statistics of wealth than to those of income. The figures of national wealth are by no means as important for the purpose in hand as are the figures of national income. They are of some importance, however, as bearing upon the nation's productive capacity. The wealth of the nation consists largely of its technological equipment—of the things, that is, which assist the people in bringing forth the national income. Other things being equal, the larger this equipment the greater will be the income out of which new capital can be accumulated.

National Income

The best evidence as to the amount of the national income which can be saved without impinging upon our standard of living is to be found by comparing the amount saved in the past with the national income of the past, and thus arriving at the normal consumption of the people. If there were an actual inventory of all the goods and services produced within the year and we had definite facts showing the disposition of these products through consumption or addition to our industrial equipment, then it would be possible to state the excess of production over consumption and the use of the amount saved. Or if we had an inventory of all goods in existence within the nation at the end of each year which we could compare with a similar inventory at the beginning of the same period, we could calculate the excess of production over consumption from the increase in physical wealth.

To the increase as shown by such inventories it would be necessary to add the amount of goods loaned to foreign nations and those used in paying off our foreign indebtedness. We should then have to deduct the goods in the inventory which represented loans to us by foreign nations or repayments by them of debts which they had formerly owed in this country. Such statistics manifestly could not be obtained except by taking a census on

practically the same scale as the national decennial census. Since there are no statistics compiled for this express purpose, it is necessary to utilize data which have been gathered for other purposes by various public and private agencies, and to interpret them in such manner as to throw light upon the problem here under investigation.

We have an index of the savings of the past in the statistics of wealth at various times. The best evidence of thrift is to be found in the capital actually accumulated. By comparing produced wealth in existence within a country at various dates we can arrive with a fair degree of accuracy at the savings of the people during the period which intervenes between the two summations of wealth. If we can arrive at the growth of wealth which was effected through savings in the pre-war period and at the national income then and now we will be in position to judge of the possible accumulation of capital at the present time.

INCREASE IN VALUE OF NATIONAL WEALTH

The fountain head of practically all information on the subject of our national wealth is the Census Bureau at Washington. In its volume entitled "Wealth, Debt, and Taxation" (1913) it shows the comparative wealth for 1912, 1904, and 1900. Table I is compiled from the data which that volume contains.

TABLE I

Estimates of Capital Wealth in the United States, 1912, 1904 and 1900

Item	1912	1904	1900	Increase 1904–1912
Real estate	$110,676,333,071	$62,341,472,627	$52,537,628,930	$48,334,860,444
Live stock, farm implements	7,606,613,533	4,918,781,599	4,056,249,246	2,687,831,934
Manufacturing tools, machinery, etc.	6,091,451,274	3,297,754,180	2,541,046,639	2,793,697,094
Gold and silver coin and bullion	2,616,642,732	1,998,603,303	1,677,379,825	618,039,429
Railroads and their equipment	16,148,532,502	11,244,752,000	9,035,732,000	4,903,780,502
Street railways and other public utilities	10,265,207,321	4,840,546,909	3,495,228,299	5,424,660,412
All other, *not including* personal clothing, furniture, etc.	21,576,065,840	10,212,281,792	8,293,242,540	11,363,784,048
Total	$174,980,846,273	$98,854,192,410	$81,636,507,481	$76,126,653,863
Total other than real estate	$64,304,513,202	$36,512,719,783	$29,108,878,551	$27,791,792,419

From this table it appears that the wealth of this country, other than real estate and personal belongings used for current consumption, increased by $28,000,000,000 during the period 1904 to 1912, or an average of $3,500,000,000 per annum. Real estate increased $48,000,000,000, or about $6,000,000,000 per annum. The total increase was, therefore, at the average rate of $9,500,000,000 per annum. But by no means all of this was the

result of capital accumulation. Much of this increase in the value of our national wealth was the result of price changes of things in existence at both dates.

Factors Affecting Increase in Total Value

Increase in Land Values.—Real estate consists of land and improvements. Only the improvements, such as new buildings, draining, clearing, fence and road building, and the planting and cultivation of orchards, are the result of production and savings. It is necessary, therefore, to eliminate from the $6,000,000,000 per annum increase in real estate, that portion which represents merely increase in value of land as distinguished from improvements.

Change in Price Level.—In the valuation of the improvements, also, the change in the price level manifests itself in a higher valuation in the latter years. A correction must be made for this element. The same is true of many of the items other than real estate, especially those which were valued by a process of applying prices to inventories rather than by taking their cost of construction.

Causes for Increase in Land Value

Improvements.—The whole increase in the value of land, considered as an economic category, must be eliminated. Unfortunately we have no index number of land values in the United States. The most practicable method of procedure is, therefore, to estimate as best we can the percentage of the total value of real estate which consists of land as distinguished from improvements at each date. An examination of the real estate assessments of twenty-four states which separate improvements from land values shows that approximately 40 per cent of the total real estate values are to be credited to improvements. The communities which make up this group are of a widely diverse nature, including as they do Arizona and Idaho on the one hand and Greater New York on the other. They may, therefore, safely be taken as representative of the general situation in the United States. The dates of the valuations are all much nearer to the year 1912 than to 1904, however; in fact, the mean date of all the assessments would be 1912. It is quite possible that the ratio in 1904 may have been somewhat different. But it seems unlikely that this difference was very great.

Growth of Population.—The general profitableness of the farming industry and the growth of population in our industrial centers have no doubt led to a very rapid rate of increase in the value of real estate during this period. But it is equally true that there has never been in all our national history such a rapid investment in buildings of all kinds as during the decade 1904–1914. Indeed the absorption of capital by building operations was one of the chief sources of the increased demand for capital and the rise in interest rates which has characterized this period.

Increase in Capital Accumulations

We cannot be seriously in error, then, if we take the value of improvements in 1904 at 40 per cent of total real estate values. This gives an average annual increase in the value of real estate improvements of $2,400,000,000 during the period 1904–1912. This added to the $3,500,000,000 increase per annum in other wealth gives $5,900,000,000 as the total increase in

wealth other than personal clothing, furniture, etc., during this period. A portion of this increase, however, is due to a rise in the price level and not to additional production and savings. Some of the items like street railways and other public utilities, which are included on the basis of their cost, and like gold and silver bullion, call for no adjustment.

According to the Bureau of Labor wholesale price index number, the price level rose 17 per cent for all commodities between 1904 and 1912. The prices of metals and lumber rose 18 per cent. Taking all the items of capital wealth together, a 10 per cent allowance for increases in values must probably be made in the 1912 valuation. If the latter be adjusted for this price change, we find that the average addition to the wealth of the nation through capital accumulation and investment was approximately $5,000,000,000 per annum, exclusive of clothing, furniture, etc. But the accumulation of capital in the latter part of this period and in the years just before the outbreak of the European war was undoubtedly more rapid, and reached a figure somewhat over $6,000,000,000.

This amount is less than the figure of $7,500,000,000 arrived at by George E. Roberts of the National City Bank of New York.[1] Mr. Roberts uses practically the same method as the one employed here. He, however, makes no deduction for the increase in the price level from 1904 to 1912. It is also slightly lower than Sir George Paish's estimate published in the London Statist, May 24, 1913. He places the annual growth of wealth in the United States at $1,400,000,000.

[1] *Annals of the American Academy*, November, 1916, p. 287.

Amount of National Income

What was the size of the national income out of which this capital was accumulated? The best estimate of income during the pre-war period is that of Professor W. I. King in his book entitled *The Wealth and Income of the People of the United States.* He places the total income in 1910 at $30,500,000,000. This figure may be brought forward to 1913 by taking the growth in railway gross revenues as the best available index of the increase in national product. These revenues in 1913 were 114 per cent of those of 1910. A proportionate increase would make the total income in 1914 $34,700,000,000. If the national savings be taken at $6,500,000,000 they constitute approximately 19 per cent of the national income. The consumption of the people for the year 1913, was, on the basis of these figures, slightly in excess of $28,000,000,000.

After we had recovered from the depression into which industry and finance were thrown by the outbreak of the European war, our national income grew rapidly. During the latter part of 1915 and throughout 1916 and 1917 there was a steady increase in the output of goods as measured in physical terms. This acceleration of productive activity probably reached its height sometime in the autumn of 1917. Thereafter the rigor of the winter of 1917 and 1918, with its coal shortage and the withdrawal of men from industry through the selective draft prevented a further increase in productive output. The extent of this increase in production has been variously estimated, but an increase of 20 per cent expresses the fact within narrow limits of error.

Increase in Money Value of National Income

This increase of output coupled with the increasing prices in which that output was measured increased the money value of our national income at an amazing rate. Thus the total personal and corporate income reported to the Commissioner of Internal Revenue in 1913 amounted to $8,614,000,000,000. In 1916 it amounted to $15,066,000,000, and in 1917 to $24,382,000,000. It is true that in 1917 over 3,000,000 persons reported who had made no reports of personal income in the previous years, but even after these are eliminated the corporate and personal incomes remaining amount to $17,700,000,000.

The following table (Table II), showing the number of income tax returns by persons with incomes of $3,000 and over, shows the effect upon personal incomes:

TABLE II

Number of Personal Income Tax Returns for the United States, 1914 and 1917

Income class	1914	1917
3,000 to 5,000	$149,279	$560,763
5,000 to 10,000	127,448	270,666
10,000 to 25,000	58,603	112,502
25,000 to 50,000	14,676	30,391
50,000 to 100,000	5,161	12,439
100,000 to 150,000	1,189	3,302
150,000 to 300,000	769	2,347
300,000 to 500,000	216	559
500,000 and over	174	456
Total	357,515	993,425

NATIONAL INCOME FOR 1917

The value of farm products increased from $9,849,512,511 in 1913 to $19,443,849,381 in 1917. These figures furnish striking evidence of what happened to national income during this period. In another place[2] I have estimated that the national income for 1917 totaled $65,515,000,000, divided as follows:

TABLE III

Total National Product for 1917, by Industries

Extractive, manufacturing, and public utilities:		
Farmers and farm laborers, including the members of their families	$14,500,000,000	
Manufacturers and manufacturing laborers	25,800,000,000	
Mine operators and miners	3,675,000,000	
Steam railroads and their employes	3,040,000,000	
Public utilities and their employes	2,750,000,000	
Subtotal		$49,765,000,000
Mercantile and professional activities:		
Wholesale merchandisers	$2,250,000,000	
Retail dealers	2,000,000,000	
Professional services	2,500,000,000	
Services rendered by others, including government employes	9,000,000,000	
Subtotal		$15,750,000,000
Total national income		$65,515,000,000

Since that estimate was made the Commissioner of Internal Revenue has published his *Statistics of Income* for 1917. The analysis of income from business (personal returns) on page 16 of that volume and of corporate returns on page 19 convinces me that the estimate presented above is somewhat excessive for manufactures and manu-

[2] The Taxable Income of the United States, *Journal of Political Economy*, December, 1918, p. 954.

facturing laborers and for mine operators and miners; but that it is very much understated for wholesale and retail dealers. The total of $65,515,000,000 is pretty well supported, however, by the *Statistics of Income*. The personal services rendered by people other than those engaged in extractive, manufacturing, transportation, public utility and trading industries still remain the doubtful element in the estimate. But this is also the element in the national income which is of least importance in capital formation. Capital consists of produced goods and not of services rendered.

This estimate, while made entirely independently of Professor King's computation of national income, nevertheless confirms it. This is shown in the estimate of B. M. Anderson, Jr., of the National Bank of Commerce of New York City, who places the national income for 1917 at $68,000,000,000 in an article in the *New York Times Annalist*, January, 1918. Dr. Anderson arrives at this figure by taking as a point of departure King's estimate for 1910 and increasing it by a factor which expresses the increase in the quantity of physical product multiplied by the rise in the general price level as shown by Dun's index number.

INCREASE IN NATIONAL SAVINGS DURING 1917

This increase in national income presented the possibility of largely increased savings. Thus if the national income increased 20 per cent through higher productive activity, it amounted to $41,400,000,000 in 1917 even when measured in terms of the price level of 1913. If the 28,000,000,000 units of consumption of 1913 increased by 10 per cent, then the nation's consumption, as measured in 1913 prices, would have been 30,800,000,000 units. The excess of production over consumption in 1917 as measured in the 1913 price level would then have been 10,600,000,000 units, an increase of over 60 per cent in capital accumulation measured in physical terms. Measured in terms of money, the increase would of course have been much greater.

The level of wholesale prices, as shown by the Bureau of Labor Statistics index, by Bradstreet's index, and by the unusually comprehensive index number of the Price Section of the War Industries Board, was 175 in 1917, as against 100 in the period immediately preceding the war. If our 10,600,000,000 units of savings be translated into 1917 dollars, our annual savings in that year stood at $18,550,000,000. The increase in production made it possible to raise the percentage of savings from 19 per cent in 1913 to 28 per cent in 1917 in the face of an absolute increase in consumption. The volume of savings was maintained during 1918 and was probably somewhat increased through the constant pressure brought upon all classes to decrease consumption in the interest of war finance.

These figures show that, given an increase of 20 per cent in productive output, it was possible to increase savings enormously without any increase in felt abstinence. The figures of savings here presented for 1917 are so stupendous and the assumptions of fact employed in reaching them are so broad that they must be tested by more direct and dependable evidence before any reliance can be placed in them.

TOTAL VOLUME OF SAVINGS

All wealth produced and not consumed is disposed of in one of three ways. It has been paid to the govern-

ment in taxes, it has been reinvested in additional plant, working capital, or some form of physical property by the individual or business organization which saved it, or it has been brought to some investment market. In the latter case evidences of proprietorship or indebtedness in the form of securities of corporations or bonds of state and municipal governments or of the federal government are issued in return. An estimate of the growth in government taxes, reinvested surplus and new securities issued will give a reasonably accurate picture of the total volume of savings.

The Investment Market

Table IV sets forth the statistics which are available for the years 1913–1918 concerning securities marketed, together with gold and securities repurchased from abroad. The figures here given for industrial and railroad securities are those listed by the *Journal of Commerce;* there are no published figures for other securities. These are considerable in volume, as is shown by a comparison of the figures given by the *Journal of Commerce* with the actual increase in capital stock and bonded and other indebtedness available in the reports of the Commissioner of Internal Revenue for the years 1909–1913.

During this period the *Journal of Commerce* reports the new securities issued as $7,157,084,000, while the actual increase for all corporations reporting to the Bureau of Internal Revenue was $17,501,954,000. Even allowing for the refundings in the *Journal of Commerce* figures and for discounts in the Internal Revenue figures, it is reasonable to put the volume of other corporate securities issued at a minimum of $1,000,000,000 per annum for ordinary years. In 1916 the volume of corporate financing was far in excess of the ordinary year, and no doubt ran as high as $1,500,000,000 in excess of the *Journal of Commerce* figures. In 1918 the needs of war finance absorbed nearly all the available funds, and the issue of securities was materially reduced. When we add these estimates of additional securities issued, to the subtotal, which includes only the published figures, we arrive at a grand total of $3,053,000,000 for 1913; $7,563,000,000 for 1916; and $14,510,000,000 for 1918.

TABLE IV

Capital Increase Shown by Investments During 1913 and 1915–1918
(in Millions of Dollars)

Item	1913	1915	1916	1917	1918
Industrial and railroad securities*	$1,645	$1,435	$2,186	$1,529	$1,345
Government securities					
Foreign	0	1,275	1,381	805	640
United States	0	0	0	5,833	11,760
State and municipal bonds†	408	493	496	445	265
Gold and securities repurchased from abroad	0	1,300	2,000	700	0
Subtotal	$2,053	$4,503	$6,063	$9,312	$14,010
Other securities, less deductions for refunding and for discount	1,000	1,000	1,500	1,000	500
Total	$3,053	$5,503	$7,563	$10,312	$14,510

* Reported in the *Journal of Commerce.*
† Reported in the *Bond Buyer.*

This table shows that a very substantial amount of savings came to the investment market in 1913; that this amount had trebled by 1917; and had more than quadrupled in 1918. But it does not express the total volume of capital accumulation in the United States in the respective years. In a normal pre-war year less than two-thirds of our capital accumulation came to the market.

Industrial and Agricultural Profits

Two of the principal sources of capital accumulation in America which do not appear on the investment market are industrial and agricultural profits. One of the reasons why the rate of interest fluctuates so little under the stimulus of the demand for capital in times of prosperity and high profits is that in such times the supply of capital accumulated out of these profits is unusually large. To a considerable degree the industries supply their needs for capital out of their own profits. The failure to realize this fact has led to an underestimation of the volume of capital accumulation in this country, and is in no small measure responsible for the derogation in which we have held ourselves in this matter of thrift. In addition to this lack of attention given to certain sources of accumulation, there has been a rather common failure to distinguish between accumulation and investment.

Capital Accumulations in Industry

In a country like France, for example, which is less industrialized than the United States, where the corporate form of organization is less common and where there are fewer opportunities within the country calling for capital, a much larger part of the annual accumulation of capital comes to the investment market. Savings there are largely in the form of investment in securities, often of foreign securities. Savings of this character become evident and are easily measured in statistical terms. In France we have nothing which corresponds to the great mass of corporate savings which are accumulated in the United States. These do not usually come to the investment market, and, therefore, attract little attention, but they are none the less real, and must be taken into consideration in any comparison between the United States and other countries. The railroads and industrial concerns in the United States have grown very rapidly, and in recent years they have added largely to the capital accumulations of the country through their additions to surplus. Practically all of this surplus was reinvested in extensions to plant and working capital made necessary by the large expansion of industry during these years. Table V shows this increase in surplus during the years 1911–1918 for all corporations in the United States.

TABLE V

Corporate Income, Dividends, and Surplus, 1913–1918

(in Millions of Dollars)

Year	Net income	Dividends	Surplus before taxes
1911	$3,213	$2,225	$988
1912	3,832	2,498	1,334
1913	4,340	2,871	1,469
1914	3,711	2,667	1,044
1915	5,184	2,766	2,418
1916	8,766	3,784	4,982
1917	10,730	4,651	6,079
1918	9,500*	4,100	5,400

* Estimated.

The method of arriving at these figures I have set forth in an earlier paper.[3] It is not necessary to repeat the details here. One sample will suffice to show the striking nature of the statistics. An examination of the published reports of mining, manufacturing and mercantile corporations shows that their net earnings, after interest and taxes, amounted to $900,000,000 in 1915, of which they retained $497,000,000, or 55 per cent as surplus. Their earnings in 1916 had increased to $1,883,000,000 of which they retained $1,219,000,000, or 65 per cent, as surplus. In 1917 these 363 corporations earned $2,316,000,000, and their surplus for the year, before deducting income and excess profits taxes amounted to $1,585,000,000. The reports of only 224 of these corporations are available for the period since 1911.

Figures showing their earnings and surplus, which are set forth in Table VI, show that in the earlier years, 1911 to 1914, they retained only 33 per cent of a much smaller income.

[3] War and Supply of Capital, *Proceedings American Economic Association*, 1918, p. 85.

TABLE VI

Statistics of Income, Dividends, and Surplus for 224 Corporations

(in Millions of Dollars)

Year	Net income	Dividends	Surplus	Per cent surplus to net income
1911	$431	$287	$144	$33.3
1912	487	299	188	39.1
1913	507	328	179	35.3
1914	381	295	86	22.2
1915	664	327	337	50.9
1916	1,364	526	838	61.4
1917	1,750	600	1,150	65.7

Corporate Savings and Taxes

It must be evident, therefore, that no accurate comparison can be made of the volume of savings in the different years without including corporate surplus. In 1917 and 1918, a large part of corporate savings was paid as taxes to the government; the same is true of a portion of individual savings. It is, therefore, necessary to add war taxes paid or reserved in order to make a complete summary of the savings of these latter years. Table VII sets forth a more complete statement of savings for the various years than was given in the table of investments given above.

TABLE VII

Capital Increase Shown by Investments, Surplus and War Tax Reserves During 1913 and 1915–1918

(in Millions of Dollars)

Item	1913	1915	1916	1917	1918
Industrial and railroad securities	$1,645	$1,435	$2,186	$1,529	$1,345
Other securities, less deductions for refunding and for discount	1,000	1,000	1,500	1,000	500
Government securities					
Foreign	....	1,275	1,381	805	640
United States	....	....	....	5,833	11,760
State and municipal bonds	408	493	496	445	265
Corporate surplus after taxes	1,469	2,418	4,982	4,500	2,000
Gold and securities repurchased from abroad	....	1,300	2,000	700	....
War taxes paid or reserved	....	....	....	3,000	5,000
Total	$4,522	$7,921	$12,545	$17,812	$21,510

The figures in this table are a pretty accurate index of the capital accumulation from these sources during 1915 and 1916. But for 1917 and 1918 they overstate the matter for two reasons. After the United States entered the war, considerable portions of corporate surplus were invested in government securities. Since this table includes both of these items, there is some double counting. Then, too, we must take account of the fact that corporate savings are here expressed in terms of money, and in times of rising prices and increased inventories the surplus does not represent a commensurate excess of physical production over consumption.

Furthermore, there was a very considerable purchasing of securities with bank loans. These must be deducted from the evidences of capital investment above in arriving at the savings of the people. The total of such loans on December 31, 1918, together with the investments of the banks themselves in war obligations and war paper, amounted to $4,300,000,000 for the members of the Federal Reserve System. These items for all banks in the United States were, therefore, not far from $6,000,000,000. The three items may amount to as much as eight billion dollars in 1917 and 1918. If we deduct four billion dollars from the figures for each of these years, the remaining totals will be as follows:

TABLE VIII

1913	$4,522,000,000
1915	7,921,000,000
1916	12,545,000,000
1917	13,812,000,000
1918	17,510,000,000

This table includes nothing for the reinvested savings of enterprises not under the corporate form of organization. Most mining and manufacturing is carried on by corporations, but the great mass of mercantile and professional activity is still under the private or copartnership form of organization. The savings of these establishments are large and no doubt increase in somewhat the same ratio as do those of corporations.

Savings of Farmers

The other important omission from the table is the savings of farmers. These no doubt increased enormously in 1917 and 1918. In the former year only a small part of these were brought to the investment market by the farmers themselves. Agricultural savings were invested, as they normally are, in the extension and improvement of farm machinery and farm buildings and in the increase of live stock; or in the payment of indebtness such as mortgages, bank loans and notes to manufacturers of farm machinery. The farmer's capital accumulation depends more largely upon his product than upon any other single factor. The expenditures of his family are rather constant, and increases in the value of his product constitute in large part a savings fund. The increased value of farm products in the United States during the war made it easy for the farmers to save without any additional abstinence. The Department of Agriculture gives the following figures for value of farm products, 1911–1918, based on prices at the farm. (See Table IX.)

Previous to the war farm savings as evidenced by the increase in agricultural wealth were at the rate of $1,200,000,000 per annum. The best estimate I have been able to make is that these savings rose to over $4,000,000,000 in 1917, while in 1918 they

TABLE IX

Value of Farm Products, 1911–1918
(in Millions of Dollars)

1911	$8,819
1912	9,343
1913	9,849
1914	9,895
1915	10,775
1916	13,406
1917	19,331
1918	21,386

exceeded $5,000,000,000. During this period farmers were paying off their mortgages and other indebtedness at a rapid rate. A large volume of these real estate mortgages had been held by life insurance companies which brought the funds to the general investment market when the farmer extinguished his indebtedness. A portion of the farmer's savings, therefore, came to the general investment market in 1915, 1916 and 1917. This movement of funds was in part responsible for the abundant volume of capital available in the investment centers for the repurchase of American securities from abroad and for the absorption of government issues. Insofar as the farmers' savings found their way to the investment market they have already been included in our estimate of savings. But the greater portion of these savings of 1915 to 1917 went into farm improvements, and must therefore be added to the figures of savings already given.

CAPITAL ACCUMULATIONS 1913 TO 1918

When agricultural savings reinvested in farms are taken into consideration, and when due allowance is made for the reinvested earnings of individuals and partnerships, the capital accumulation for the years 1913 to 1918 may be conservatively put as follows:

TABLE X

1913	$6,500,000,000
1915	9,000,000,000
1916	14,500,000,000
1917	18,000,000,000
1918	22,000,000,000

The savings of 1918 were made out of a national income which in physical terms was barely maintained at the 1917 level. The price level was, however, higher. The Bureau of Labor Statistics index shows the relative prices of 1918 as 197 per cent as against 175 for 1917; this was an advance of 12.6 per cent. The general publicity campaign which had for its object the reduction of consumption as a war measure resulted in increasing savings expressed in money terms over 20 per cent. In 1918 approximately 30 per cent of our national income appears to have been saved.

FACTORS IN CAPITAL ACCUMULATION

Several important generalizations concerning the factors which determine capital accumulation can be drawn from our experience during the last five years. The volume of capital accumulation is affected first and foremost by the volume of productive output. Every increase in production leads quite directly to an increase in capital accumulation. Conversely every fall in productive output will reduce it. Second, other things being equal, capital accumulation is likely to be largest when the share which goes to profits is large. The organization of our industry under the corporate form and the principles of financial management which dominate the corporate institution inevitably work to that end. Third, it is possible to stimulate thrift by popular education.

VOLUME OF SAVINGS FOR 1919

In 1919 the volume of capital accumulation will be decidedly less than in previous years, even when reckoned in terms of money. This is true despite a further increase in prices. The level of wholesale prices for the year 1919 will average at least 210. But production has fallen off by more than 10 per cent, and with the continuation of the coal shortage may be as much as 15 per cent below that of 1917. This decrease in output would naturally lead to a serious curtailment of savings as compared with the high point reached during the war. With the higher standards of consumption to which the great mass of our people have become habituated, and with the smaller profits and larger dividends of our corporations, the volume of savings measured in physical quantities will fall to the pre-war level.

The farmers of the country are enjoying unprecendented prosperity, and are probably contributing as much to our supply of capital as they did during the war. But we cannot hope to maintain the rate of capital accumulation of the last four years in the face of falling production. The one practical method of increasing it is by the encouragement of thrift. The ideal method of increasing it would be through the maintenance of that high level of productive output of which we found ourselves capable during the war. But with capital and labor in their present moods and with a woeful lack of statistical and other information necessary for the proper coördination of production and demand, the admonition to increase production is a counsel of perfection. The encouragement of thrift remains, then, the one practical method for increasing the supply of capital at this time.

Thrift and Labor

By Alvin H. Hansen, Ph.D.
Associate Professor of Economics, University of Minnesota

THE central problem of the present discussion may be stated as follows: Is a nation with a high standard of living, or in other words a nation that spends freely, more or less prosperous than a nation which restricts consumption, lives simply and saves thriftily?

Banking Theory vs. Business Theory

This question at once raises an antagonism between bankers on the one hand and business men on the other. Bankers are always busily engaged preaching the homely virtue of thrift. To them the volume of savings accounts is the prime index of the prosperity of a community. Business men on the other hand are constantly engaged in a huge propaganda to make spenders of us all. It is probable that not far from a billion dollars are spent annually in the United States for advertising. The business man does not want us to save; he wants us to spend. He measures prosperity not by the average family savings but by the average family scale of expenditure.

The Thrift School vs. the Spending School

The labor movement is a record of a similar antagonism. The Schulze-Delitzsch and Raiffeisen Credit Societies, the Rochdale Consumers' Coöperative Societies, now constituting nearly one quarter of the consumers of England, Russia, Belgium, Germany, Austria and Denmark,[1] find the solution of the labor problem essentially in saving. Through saving and the petty accumulation of property on the part of large masses of people not only does the individual prepare the way for an enlarged future income and provision for old age, but the working class as a whole prepares the way for the coöperative ownership of the whole means of production, and the complete elimination of the profit system. This working class movement thus moves forward in the firm belief that it is gradually staking out for itself the coöperative commonwealth through the program of collective saving. The social revolution will be accomplished not through violence and class struggle but through the homely virtue of persistent and constant saving. This may be called the thrift school of social reform.

On the other hand is the spending school. Beginning with Sismondi, and running through the writings of Rodbertus, Ira Steward and John A. Hobson (to mention only one representative from each of the four great modern nations) we have a group of thinkers who contend that labor must find the solution of its problems not in saving but in spending. The underpaid working man barely living from hand to mouth will not find the way out of his difficulty in a thrift policy which compels him to tighten his own belt, to send his children off to school ill-nourished and unfit for study, and finally to set them to work in the factory at the earliest possible age handicapped in their equipment for life. Rather he

[1] See Monthly Labor Review, March, 1919.

will find the solution in the struggle for a larger share of the product, shorter hours, more leisure, a higher standard of living, better education, better housing, better food, better clothes, more comforts and luxuries. Ira Steward, constant exponent of this theory, even looked forward to the ultimate elimination of both interest and profits through the gradual acquisition on the part of labor of a larger and larger share of the product of industry. Shorter hours, more leisure, higher standards of living, the demand for a larger life and the constant struggle to attain it would ultimately make everyone at once both worker and capitalist. The coöperative commonwealth would be reached not through saving but through spending.

HARMONY OF INTEREST THEORY

But the argument for spending does not always or necessarily extend to the extreme of the ultimate elimination of interest, profits and the capitalist system. George Gunton, disciple and literary heir of Ira Steward, sought to establish the principle that capital itself would be benefited by the enlarged spending of the masses. If the masses live high and spend freely, the great demand for consumption goods gives rise to remunerative employment for capital goods. Hence business is prosperous, profits are good, large surpluses are retained in businesses in order to expand the equipment, and wealthy people are induced to enlarge their fortunes through saving because of the profitable rate obtaining in the employment of capital. Thus a harmony of interest theory is developed. Spending on the part of the general masses becomes an advantage for those who are in a position to save large fortunes. On the other hand saving on the part of the wealthy becomes a benefit to the spending multitudes in that it supplies them with the equipment requisite for wide-spread employment, and the satisfaction of their high standard wants. A division of labor is thus effected which is mutually advantageous.

If the masses did not spend there would be no profitable employment for capital, and if the wealthy did not save there would be no equipment[2] with which to obtain employment, incomes and want-satisfying things. Thus the thriftlessness of the masses makes possible the accumulation of huge fortunes. Says Professor H. G. Moulton: "If everybody attempts to make adequate provision for old age through saving and investment there is certain to follow in good time a curtailment of production that results in unemployment and part-time work, and this not only prevents the masses from making adequate provision for the future, but leads to reduced consumption and often to real privation."[3] Speaking of the extravagance of Americans, their high standard of living, and the rapid expansion of American industry he says further: "Perhaps most significant of all, it has intensified the concentration of ownership and the development of an aristocracy of wealth. The enormous expansion of capitalistic industry was profitable only so long as consumption continued high. The thriftlessness of the masses of American people gave the impetus to an ever expanding capitalistic production . . . while more thrift on the part of the masses would have re-

[2] It should be noted that Professor Moulton finds another source of capital equipment in the expansion of bank credit. See J. of Pol. Econ. for May, June, July and November, 1918.

[3] J. of Pol. Econ., Nov., 1918, p. 880.

tarded the rate of capital formation as compared with the rate we have had under the impetus of high consumption. . . . This large consumption on the part of the masses has made it profitable for corporate industry continually to expand through the process of putting funds directly back into the business; it has thus given us vast fortunes for the relatively few and little if any provision for old age for the many."[4]

THE RELATION OF SAVING AND SPENDING TO THE CYCLE OF PROSPERITY AND DEPRESSION

But this alleged harmony of interest does not run a uniformly smooth course. Modern business is always being disturbed by the wave-like cycles of prosperity and depression. Why does not this mutually satisfactory spending and saving work out in continuous prosperity? The reason, we are told by John A. Hobson, is that the rich save too much and the masses spend too little. The fundamental cause of depression may be found in the existence of surplus incomes. Wealthy people desire to increase their fortunes. They do so by saving instead of spending. These fresh savings are rapidly translated into additional capital equipment. This extension of capital equipment soon results in an enlarged output of consumers' goods. The masses of people with their limited incomes are unable to purchase this enlarged outpouring of consumers' goods. The recipients of surplus incomes have ample purchasing power to take off this surplus of production but they are unwilling to spend enough of their incomes to prevent the over-production of consumers' goods. No matter how much production is directed toward the things that would appeal to the rich, even their ostentatious wants are so amply provided for that they always will desire, in periods of prosperity, to invest and save too large a proportion of their incomes.

Since they are themselves unwilling to spend the proper proportion of their incomes on consumers' goods the new investment must necessarily produce goods intended for the masses. Because of the limited incomes of the masses and their inability to purchase this new outpouring of goods the inevitable result is a congested market, depression, lower prices, smaller profits and smaller incomes for the rich. Since the wealthy class would be unwilling to have their established scale of expenditure reduced they will continue to maintain the same standard, despite the reduction of incomes. The result is that less is saved and invested in capital equipment. Thus consumption is given a chance to catch up with the capacity of the industrial equipment, surplus goods are worked off and prices again rise.

With the return of higher prices, profits are increased, incomes are greater, a larger and larger proportion of the surplus incomes are invested in capital equipment, and production again outruns consumption.

Surplus incomes, therefore, produce excessive saving and result in an incessant attempt to employ capital in excess of the demand of the ultimate consumer. Thus Hobson explains the ever recurring cycle of depression. Surplus incomes must be reduced by taxation, spending must be increased by raising wages, shortening the work day, and increasing the general standard of expenditure.

Such a solution of the problem of depression appears to the writer to be

[4] J. of Pol. Econ., Nov., 1918, p. 874.

not only chimerical, but to be based on a completely erroneous analysis of the cycle of prosperity and depression. The writer hopes to publish elsewhere a detailed study of business cycles based on monthly data for Great Britain, Germany and the United States. While it is impossible to go into detailed arguments in this paper it is his conclusion that neither under-consumption or over-production produce the economic cycle. In brief the solution of the problem of the business cycle must be found in the movements of money, credit, prices and profits. Leading exponents of this view, it will be at once recognized, are Fisher, Veblen and Mitchell, there being, however, wide differences in their theories particularly as to the number of factors involved.

The various financial and industrial indices relating to the business cycle fall into three groups in point of synchronous movement. The first may be called the *Banking Group*, including such indices as bank reserves, bank deposits, bank loans and discount rates. The second may be called the *Investment Group*, which includes stock prices, shares traded on the stock exchange, liabilities of business failures and bank clearings. The third may be called the *Industrial Group*. This group includes wholesale prices, production of pig iron, railroad gross earnings, imports, unemployment and immigration. The series in each group are almost completely synchronous. The Banking Group precedes the Investment Group in point of time by two or three months, while the Investment Group precedes the Industrial Group by from six to twelve months. Substantially similar results were found for Great Britain, Germany and the United States, the movements being practically synchronous in all three countries.

The casual relation runs through the sequence of bank reserves, discount rates, bank credit, issue of securities, purchasing power of business industries, prices, production and profits. The movement of the Banking Group presently affects the Investment Group, and the combined influence of these two work out in due time their influence on industry, prices, production and profits. The inevitable inability of the banking credit, of all the advanced nations combined, to expand indefinitely puts a halt to the period of prosperity. Ensuing depression releases the strain on banking credit, and the freshly accumulated reserves soon give rise to another period of expansion and prosperity.

The evidence for the support of the above more or less dogmatic statements cannot here be presented, but it is believed that there is ample justification for the statement that under-spending and over-saving are not among the forces that produce the cycle of prosperity and depression. Enlarged spending is not the solution for this modern evil which so vitally affects labor.

HIGH CONSUMPTION AND THRIFT RECONCILED

But the position taken by Professor Moulton in his recent articles on Commercial Banking and Capital Formation in support of high consumption has nothing inherently to do with the fluctuating business cycle. May it not be that a nation, which spends freely and indulges in high consumption, will have always, both in prosperity and depression, more employment, larger production, higher well-being and a greater supply of capital equip-

ment than a nation closely parsimonious and thrifty? This is an entirely different matter. We are again faced squarely with the question as to which policy will bring the greatest wealth and well-being to a nation, the policy of universal thrift or the policy of high consumption and free spending.

With regard to this question the writer is in agreement with Professor Moulton. Entirely apart from the surface waves of the business cycle, universal high consumption makes for a deeper, more permanent body of prosperity, larger production, more capital equipment and greater wealth and well-being.

But it must be noted that high consumption does not mean wasteful consumption. Thrift and a high scale of living are by no means antithetical. Thrift and saving do not necessarily result in capital formation, or in an addition to the industrial equipment. Thrift and saving may just as likely result in an enlarged stock of durable enjoyment goods. Herein lies in part the reconciliation between spending and saving. A thrifty workman by means of a niggardly scale of living is accumulating a good sized savings account. The bank invests his savings in railroad securities from the proceeds of which the railroad enlarges its equipment. Another equally thrifty workman, but with a more generous scale of living is making gradual payments on his house until he becomes the full-fledged owner of a comfortable home. Thrift in the first case results in capital formation. In the latter case it results in an addition to the stock of durable enjoyment goods. One type of thrift involves a low scale of living, while the other implies a high standard of living. In the one case thrift adds to the supply of industrial equipment; in the other it increases the demand. Effective demand is fundamental as a basis for national prosperity.

France is an excellent example of a universally thrifty nation. But she has not been a model of prosperity. Would not the French nation have been more prosperous if her people had invested less of their income in the securities of Russian and Balkan railroad, mining and industrial concerns, and had spent more of their income on a higher standard of efficiency, better homes, education, comforts, etc.? The result would have been a tremendous boom for her industries, more employment for her working class, and a richer life for her now too niggardly peasants.

A Thrift Program and an American Standard of Living

A universal national thrift policy which results in large overseas investments and financial imperialism is not the sort of thrift which will be of benefit to labor. Neither is a thrift program desirable which results in an un-American standard of consumption. We would not be pleased if American labor generally should adopt that sort of thrift practiced by certain low standard immigrants who live on a miserable scale while accumulating a small fortune to carry back to their own country. Such a thrift policy not only makes life miserable for the individual family and lowers the nation's standard of living, but at the same time brings stagnation to industry and forces the investment of surplus savings abroad.

But there is a national thrift policy which would be of benefit to labor. It must not be a thrift policy which leads to financial imperialism, industrial

stagnation and niggardly consumption standards. It must be a thrift program which results in generous but judicious expenditure, high standards of living, large production and general industrial prosperity.

The coöperative movement is a thrift producing movement. But it should be noted that it does not inculcate the kind of thrift which results in low standards of living and reduced consumption. A Scottish coöperator using the dividends received on his wife's purchases at the coöperative store to meet payments on his house laughingly complains that his wife does not spend enough, for the more she spends the sooner will the house be paid for! The coöperative movement as a thrift movement does not merely result in the accumulation of considerable capital in the form of retail stores, wholesale houses, manufacturing plants, stocks of goods, etc., but it uses its credit and its profits as a means whereby consumers with small incomes may come to possess durable enjoyment goods and thus raise their standard of living.

The coöperative movement reconciles saving and thrift with high consumption in another fashion. On the continent of Europe, particularly in Belgium, it has been made a device for coöperative saving by means of which provision is made for sickness, unemployment, invalidity and old age. Here again is an agency for thrift which does not unduly depress consumption during the saving period, and which protects the standard of consumption throughout the vicissitudes of life. Individual saving on a scale sufficiently large to protect the family against the contingencies named is not only exceedingly wasteful, but requires of necessity a niggardly and narrow scale of consumption and a low standard of life. Such thrift and saving not only doom the individual family to fearful sacrifices, but if carried on universally would deprive the nation of that general industrial prosperity that goes with high consumption.

But a national program of thrift which is not to sacrifice high consumption cannot rely on or wait for a voluntary coöperative movement, especially in America where it has made such meager headway. There should be a national program of thrift which does for its citizens what the coöperative movement does for its membership. Social insurance in all its aspects—accident, sickness, invalidity, old age and unemployment—is clearly a part of an economical, worth-while thrift program. Above all a thrift program should in some way seek to increase home ownership. The Federal Farm Loan Act makes provision for the utilization of the coöperative credit of the nation for the laudable purpose of helping farmers to become land owners. Why should not the nation's credit be mobilized in some similar fashion for the purpose of assisting our citizens to become home owners. President Emeritus Eliot of Harvard University contends that two of the reforms most urgently needed in America lie in the fields of housing and public health. A national home loan measure would stimulate state activity along the same line, as has been true in the case of the Federal Farm Loan Act. A national housing program would stimulate thrift, that kind of thrift which does not lower consumption, which raises the standard of living, and which makes for employment, productive activity and industrial prosperity.

Organized Labor's Attitude Toward the National Thrift Movement

By Frank E. Wolfe

Of the American Alliance for Labor and Democracy

DURING the past year hundreds of thousands of workers who have spent a large portion of their years working for others have suddenly become employers. They have made a discovery and it is bringing results. They have employed their dollars, their savings, and put them to work earning an income. It has become a fixed habit with these thousands of workers, men and women, to devote a part of each week's wages to a certain stipulated saving and to put it where it makes a certain and safe investment.

The second discovery made by these workers was that as their savings grow, the dollars, their first saved dollars, earned in their work were in turn immediately employed—that their accrued interest, the wages their working dollars were earning, was willing to work for them and to their continued and growing benefit.

To many of the workers their newly acquired knowledge was such a wonderful thing that they wanted others to know the wonder of it. Out of this has grown savings clubs among labor groups and it has always made smooth the way for resolutions endorsing war savings and thrift stamps.

To most of these workers the discovery came by reading in the labor press something about war savings stamps. Many times this came through resolutions passed by the convention of his or some other union wherein there was the heartiest and most wholesouled endorsement of thrift stamps

The great benefit to labor, through regular purchase of war savings stamps, was early apparent to leaders of organized labor in America. Samuel Gompers, president of the American Federation of Labor, early recognized the value of war savings stamps and he expressed this in a statement, issued to be sent broadcast through the labor press, in which he said:

> Let not the great issues and events of today take our thoughts wholly away from those small and quiet duties without the performance of which the larger scheme of things may be endangered.
>
> The great wheels often must be turned by a silent power that exerts its force where there is no limelight and no great acclaim. But the great wheels must be turned.
>
> The sale of war savings and thrift stamps helps to keep the great wheels of the American government turning at their proper speed. With the high pitch of war excitement almost gone, this work is one of perseverance in the line of duty. The men and women who sell and the men and women who buy are doing a work no less worthy than it was when our troops went charging over the Hindenburg line. It is no less worthy now than it was when the drums were beating. And it is no less needed.
>
> To the 165,000 secretaries of war savings societies may I say that theirs is a fine work, a necessary work and one to which every thoughtful person will wish to bring them help.
>
> But there is another side to the sale of these little stamps. While it helps our government, it also helps those who buy. It helps them to be careful of their money. It helps them to lay by a little which will stand to their credit as a resource. This is surely a worth while thing to do.
>
> And so the work of selling war savings stamps does two things:

It helps get money for our government at a time when it needs money.

It helps the purchaser of stamps to accumulate a little money that he may need at a later time.

It is good work. A grateful Republic cannot fail appreciation of the toil and sacrifice of every person who has a part in this wonderful process of gathering in the mites of the people until they bulk large in great totals that go to keep the machinery of democracy in order.

Later the American Federation of Labor, at the annual convention at Atlantic City in 1919, passed a resolution warmly supporting the National Thrift Movement, which, after a strong preamble, resolved, "that this convention do approve of the continuation and extension of the war savings and thrift stamp institution as a necessary peace time institution or the substitution of a national savings institution akin in character and method which shall prove helpful to safeguard the earnings of the toiling masses of our country." This act of unqualified approval of the chosen representatives of nearly four millions of organized workers greatly stimulated interest in war savings stamps as a safe and wise investment for organized labor, either as individuals or through their organizations.

Frank Morrison, Secretary of the American Federation of Labor, who has always shown a deep interest in war savings, wrote to the director of the Savings Division of the Treasury Department transmitting the Atlantic City resolution and added:

This campaign, the outgrowth of a program of war finance, we believe to be essential as a permanent peacetime institution. I am confident that the officers and members of the unions affiliated with the American Federation of Labor will coöperate in the movement. The government savings securities are safe and profitable and may be converted into cash at a profit on short notice.

Many other labor organizations, local, state and international, at their conventions passed strong resolutions advocating the investment in war savings stamps as an excellent thing for the members of their organization. Labor recognized in war savings stamps an opportunity to extend and strengthen its power by making each worker more independent, more self reliant, dependable and safe in any emergency.

Any financial secretary will unhesitatingly say that the man who buys war savings stamps regularly is the surest one to come up promptly and pay his dues. These secretaries have become strong advocates of systematic purchase of thrift stamps. They know that the worker who has his dollars working for him has made a discovery that leads on to security and reliability.

Thrift and Business

By George W. Dowrie
Dean of the School of Business, University of Minnesota

Post-War Conditions

FIGURES for the first nine months of 1919 show the smallest number of mercantile and industrial failures for any like period since 1881. A very large volume of trade is being handled at satisfactory rates of profit. The present volume of sales of any given retail or wholesale establishment seems to depend quite largely upon its ability to secure an adequate supply of goods from wholesalers or jobbers and manufacturers respectively. The manufacturer in his turn is limited by his success in obtaining raw materials from an under-supplied market. If one is to judge by the usual indicia such as bank clearings, volume of trade, demand for loanable funds and for labor, we are enjoying a period of great prosperity in spite of the almost universal prediction to the effect that a period of depression would set in immediately after the cessation of hostilities.

In spite of the fact that the most optimistic entrepreneurs expect the usual post-war decline in prices, this decline has not set in to any marked degree, in fact, the prices of many commodities have continued to rise. A heavy demand for every sort of commodity continues and, in some cases, unheard of prices are being asked and obtained. The high price level has compelled constant increases in wages, which seeming additions to his well-being have in many cases resulted in a falling off in the worker's efficiency as a producer and a greater liberality in his scale of expenditures. This latter has been considerably accentuated by the feeling of "letting down" after the deprivations of the war period. After two years of restricted consumption, either voluntary or imposed by the government, the natural reaction is in the opposite direction.

Notwithstanding the fact that the business outlook continues good, save for labor troubles in certain industries, a period of falling prices, contraction of credit and general economic readjustment is bound to come. It is the purpose of this discussion of thrift and business, therefore, to point out some tendencies which have been developing during this abnormal period and which should be eradicated from our economic life if they are not to prove a decided menace in the period which is likely to follow.

Thrift in the Process of Saving

True Saving.—The industrial system, in order to function in a proper manner, should furnish the maximum amount of satisfaction to society. Such a result can be attained only by certain lines of conduct on the part of both consumers and producers. On the consumer's side, a highly efficient productive system—efficient in the sense of achieving the highest amount of satisfaction of wants—cannot be attained unless his consumption is properly ordered. This involves habits of thrift not only with regard to abstaining from spending but with respect to the spending process itself. "Spending makes business good" can be accepted only with the most careful qualifications. Mere abstinence from

spending, of course, is not good for business. The miser who hoards his surplus in a hiding place is making no contribution toward a satisfactory economic order.

On the other hand, the individual who "wastes his substance in riotous living" has done no better. Our present roundabout method of production involves large advances of spendable funds on the part of a thrift practising public. If we are to substitute for simple direct methods of production the far more effective but time consuming process of "making a machine to make a machine to make a machine" to turn out a given consumable commodity, abstinence must be practiced by large numbers of individuals. If they were to spend all of their respective incomes for consumptive goods like shelter, clothing, food and amusements, the provision of capital goods like factories, railroads and mines would be cut off and mankind would have to revert to primitive methods of satisfying its wants. Not only, then, must there be abstinence, but the resulting surplus must be placed at the disposal of business directly or through commonly established media like savings banks and investment companies. If this supply of liquid capital for the replacement of and additions to the stock of capital goods is not forthcoming, the productive mechanism is seriously hampered and the consuming public, in as much as it is deprived of an adequate supply of goods and services, is the real sufferer.

Personal Thrift.—The present period has not been characterized by habits of personal thrift on the part of the American public. Enormous sums invested in government securities of various sorts under the stress of war have been squandered subsequently by their exchange for high-priced luxuries or for the more or less worthless securities of speculative enterprises. Savings deposits have increased but not in proportion to the general increase in the prices of the things which form the usual objective of saving. A considerable part of the government's war issues are still in the hands of the banks, having never been absorbed by the investing public. Here, they have aggravated living costs by their use as collateral for advances for loans at the Federal Reserve Banks, the proceeds of which were used for speculation.

Relation of Savings to Business.—If business is to be adequately financed, there must be, therefore, a constantly dependable flow of new capital from the savings of the public. Systematic habits of thrift must be inculcated throughout all classes of the people. The well-to-do class, in spite of its relatively large earnings, is an entirely inadequate source of supply of new capital. The great masses must be depended upon on the strength of the old saying that "many a mickle makes a muckle." It is not the province of this article to make a disquisition upon the direct benefits of or, better, the necessity of "rainy-day" saving. We are here concerned with the relation of the saving process to the conduct of business. The two go hand in hand, however, for the man who invests his surplus earnings in an enterprise whose product makes for the real welfare of the consuming public does much more than add to his yearly income in the way of interest or dividends and creates a permanent principal as a guaranty against an impecunious old age. He is also benefiting himself and his fellows indirectly by contributing a necessary factor to the industrial process which is providing for their well-being.

As was pointed out earlier, not only must there be a properly directed abstinence from spending but there must be a properly directed spending as well. The maximum degree of satisfaction, which is the goal of a properly conceived economic system, cannot be attained without intelligent expenditure. A properly nourished, well-housed and adequately trained citizenry cannot be realized unless expenditures are directed along lines which are capable of achieving this end. The demand for goods and services is the motivating factor in industrial activity. Consequently, where this demand consists largely of luxuries, to that extent the economic process is perverted and to that extent our *summum bonum* cannot be obtained. The thriftless spender, therefore, injures business in two ways: first, by his failure to aid in providing adequate working capital for business activity, and second, by his unwise demands being responsible for the diversion of business activity into lines which will not result in the achievement of a maximum of social satisfaction.

A nation-wide thrift policy both as regards saving and spending would undoubtedly result in great immediate hardship to many businesses which cater to the harmful or at least less justifiable desires of human beings. Processes which involve considerable economic readjustment are always painful and somewhat costly, but society will be incalculably better off in the long run.

THRIFT IN CONDUCT OF BUSINESS

On the side of thrift in the conduct of business itself, quite as much needs to be said. Granted that the individual consumer did his part in devoting a portion of his income for furthering production, and that his demands were such as to insure the best use of the productive mechanism, still, if this mechanism were not operating on a high plane of economy and efficiency his efforts would to that extent be lost. We have undoubtedly inherited from the war period some industrial and business standards and conditions which are not consistent with the highest thrift in the conduct of an enterprise.

Necessities of war compelled the sacrifice of economy and efficiency to quantity and speed. Cantonments, ship yards, ships, munition plants, warehouses and an endless variety of other structures had to be rushed to completion at the earliest possible date. The farm resources of the country had to be pushed to new limits if we were to feed our own people and have an adequate surplus to send to our allies. The output of mines and forests had to be increased to the highest possible point in order that the various agencies concerned in winning the war should not be hampered by a lack of materials. Resort was had to methods which ordinarily would be condemned as wickedly extravagant in order to speed up the production of food and raw material and the completion of necessary construction work and manufactured articles.

It is estimated that in one way or another we succeeded in increasing the output of our industries by at least a fourth over that period preceding the war. But this result was achieved at a great sacrifice in money and standards of business efficiency. Prices of essential commodities like wheat, iron and copper were fixed at so high a price that the maximum supply would be forthcoming. As a result a large

number of establishments which were formerly conceded to be submarginal because of their prohibitive operating costs were enabled to operate and add their contribution to that of their more fortunate rivals. Although the war has been over for a whole year and the justification for uneconomical methods no longer exists we are still far short of our pre-war standards of economy and efficiency so far as the conduct of our business activities is concerned.

With the signing of the armistice and the withdrawal of artificial stimuli, the unprecedented volume of production began to fall off. For the time being the decline has been checked by the fact that the advent of peace has been attended by a period of unnatural prosperity due to the vicious circle in which high prices are followed by higher wages which in turn result in higher costs of production and a larger demand for goods, which in their turn result in still higher prices, and so on until a crisis is reached. The crest has not yet been attained but it is quite universally agreed that it is close at hand.

When the reaction sets in it is bound to be attended by a curtailment of production and industrial disorders much more serious than is usually the case, unless our productive efficiency is enhanced. The wasteful business methods justified by the haste and size of war preparations must now be eliminated. They have left behind them in the case of both employers and employees a certain highly undesirable influence. The sort of "easy money" atmosphere which has pervaded all lines of business and resulted in excessive profits in the case of one group and unheard of rates of wages in the other is proving to be detrimental to the maintenance of high standards in industry and commerce. Its existence is bound to make the suffering in the period of readjustment much more acute. Furthermore, the high standard of living which American workmen have been able to maintain during the war in spite of high living costs will be seriously impaired by a decided decline in production and a consequent sharp reduction in wages, or worse, by actual unemployment.

The world is being stirred at present, as never before, by serious economic and social unrest. When prices go down, industrial activity is severely curtailed and labor's standard of living impaired, we may expect to see the present unrest turn into an irresistible demand for the overthrow of the present economic order, unless the loss in productivity of labor can be successfully offset. If the present prevailing methods of wage payment do not stimulate in the worker an interest in his job and, therefore, do not result in the maximum of product consistent with good workmanship and a proper regard for his well being, methods will have to be devised to secure this result. No economic system can survive if the tens of millions of individuals who are chiefly responsible for its functioning are mere "servants of the fee."

On his side, the entrepreneur can do much to increase the efficiency and, therefore, the productivity of his business. During these days of lavish spending and high-speed production he has reaped large profits in spite of a pretty general neglect of certain "loose ends." It is comparatively easy to make money in a régime of rapidly rising prices. Farmers, merchants and manufacturers whose methods are notoriously unbusinesslike will have what normally would be a deficit offset by

unexpectedly large receipts due to higher prices.

Inadequate financing of enterprises, unwisely directed purchases of equipment, raw material, or merchandise, wasteful marketing methods, and inefficient direction of the labor force are a burden upon the consumer and unless artificially bolstered by rising prices sooner or later come to an untimely end. The gospel of better business methods, ought to be preached as we near the end of such a period as the present. Business can endure the burden of carrying along the inefficient enterprise when times are prosperous, but this is a load which the consuming public ought not to bear. Inefficiency ought to be eliminated by means more lasting and less cruel than the collapse of the unfit establishment in times of financial stress.

Thrift and the Financial Situation

By A. C. Miller
Federal Reserve Board, Washington, D. C.

WHAT is the financial situation of the United States? More particularly, what does our financial situation disclose that makes the practice of thrift and saving a matter of very great national urgency at the present time? The great outstanding facts in a summary view of our financial situation, which are pertinent to this inquiry, are:

1. The prodigious scale of our public expenditures;
2. The unprecedented weight of our direct tax levies;
3. The excessive volume of our governmental borrowing.

Extraordinary expenditures occasioned by the war thus far amount to over thirty billions of dollars with the prospect that the figure will be raised to thirty-five billions by the end of the current fiscal year. Direct tax levies on individual incomes and the earnings of industry are running at the rate of about six billion dollars a year. The money borrowed by the Treasury to finance the public requirements, since the beginning of the war, amounts to twenty-five billions of dollars.

These are stupendous figures. Events and conditions since the armistice are beginning to bring home to many of us for the first time the economic meaning to the nation and to the life of the average citizen of the financial situation thus developed by the war and left after its close.

Magnitude of War Expenditures

Levy on Capital Accumulations

Expenditures of the magnitude of those incurred by the United States for the war unquestionably mean some considerable impairment of the rate of the nation's capital accumulations during the past two and one-half years. No country is rich enough to stand such a drain upon its economic resources as the United States has been subjected to during this period without suffering an appreciable impairment of its capital account. The extent to which the huge expenditures of the government have cut into the capital accumulations of the country can not be determined, but common observation and complaint bear evidence that it constitutes a very important item in the economic cost of the war. The circumstance that, during the war the whole thought and energy of the nation was concentrated on the problem of increasing production facilities for the production of war supplies, resulted in less that the normal provision being made for the upkeep and extension of such of the country's industrial equipment as was not primarily needed in war-time, however important it might be in peace-time.

Deferred Capital Replacements

The run-down condition of the transportation system of the country, particularly the street-car service, and the great shortage of dwelling house

accommodations are striking examples coming within the experience of most people of the way in which the war and the insistent and voracious demand it made for first call upon the productive capacity and resources of the country, interrupted the up-keep of many of the productive facilities of the country not clearly essential to the prosecution of the war. There are many other evidences here, there and elsewhere throughout the country, of the fact that the war has left the capital equipment of the nation—that is, buildings, tools, machinery, etc.—in many important fields of industry in such a condition that much must be done to bring it up to a normal state of adequacy and efficiency. More buildings, more machinery, more trackage, etc. must be built. These things are a part of the industrial equipment of the community—they are its capital. On them depends the productivity of American industry and American labor. Impairment in the rate of growth of capital means impairment of our industrial capacity. The productivity of American industry and labor depends, more than can be said of any other community in the world, upon the character and the extent of the industrial equipment with which they are provided. Our rapid industrial progress in the past, it has long been recognized, was due largely to the fact that abundant provision was always made out of the product of industry for its further extension and development and improvement.

Before the war about one-sixth of our productive power, as nearly as can be estimated, was devoted annually to the improvement and extension of the industrial equipment and plant facilities of the country, to the development and exploitation of its natural resources, to the building of roads and houses, and to many other things, which added much every year to the capital resources and productive capabilities of the country. In brief, before the war about one-sixth of the wealth, which we annually produced, was saved and practically all accrued to the nation's industrial- and financial-capital account.

During the war much, if not most, of our customary industrial expansion was suspended, despite the fact that there was a notable increase in the individual savings of the American people. All of the new savings and most of the normal savings during the period of the war were absorbed by the government and were used directly or indirectly in furtherance of war production. No doubt much of the new industrial equipment called forth by war production will, also, be found useful for peace-time production and, to that extent, will not be lost altogether to the capital account of the country. Nevertheless, most of the savings appropriated for public use in the time of our war emergency represent something which, from the point of view of the nation's peace-time economy, must be regarded as unproductive expenditure and economic waste. There is, therefore, a shortage in the capital equipment of the country due to the diversion of the bulk of the country's savings during the war from the production of peace-time facilities to war-time facilities, which must somehow or other be made good if American industry is to maintain its normal productivity. There is but one known economic method by which this result can be accomplished and that is the method of saving.

CAPITAL REPLACEMENTS MADE THROUGH SAVING

How is saving related to the all-important matter of restoring and improving and increasing the industrial equipment or capital of the country?

To most people saving is thought of as laying aside money, or as giving up something which has customarily been consumed or which might be consumed. This is, however, merely the first step of the saving process, as a brief illustration will disclose. Perhaps I am on the point of buying an automobile. Heeding the injunction to save, I decide to give up my purchase of an automobile, at any rate for the present, and until the present national and world emergency is measurably over. What does my action in foregoing the purchase and use of an automobile do to help industry? Specifically, how does it result in an addition to the industrial capital of the country and thus help to make industry more productive? So far as I can trace my action all that I save is the dollars which the automobile would have cost and which the gasoline, tires and other requisities for the operation of the automobile would have cost. What do my saved dollars do to improve the economic situation—to repair or build factories and otherwise expand production facilities? I can see what my saved dollars do to give me dollars against the contingencies of a rainy day sometime in the future by assuring me of something in the bank with which to buy food and clothing, but I have still to be shown how my refraining now, for example from the purchase of an automobile, increases the productivity of industry, makes goods more abundant, and thus helps to bring down prices and improve the financial situation generally.

When you save dollars, Mr. Reader, you save what dollars will buy. In the case in question, your going without an automobile either saves that automobile for some more important use than your pleasure or, what is more likely, supposing that others are doing as you are doing, it saves industry the necessity of devoting as much labor and material and machinery to the production of automobiles as would otherwise be necessary and thus releases that labor and material and machinery for something else, which, in the existing circumstances of the country and the world, is more necessary. In brief, when you save money by cutting down your current consumption, you save more than dollars and you save more than the goods that you go without. You save the labor that it costs to produce those goods and you liberate the labor and productive power thus saved for the production of other things—such as, machinery, buildings and other much needed requisites of production —which it is most urgent the country and the world should have more of at the present time.

DIRECT TAXES AND CAPITAL ACCUMULATION

Diversion of Capital from Channels of Industry.—The need of a great increase in individual savings, in order to provide the requisite capital for expansion of our industries, gets much additional emphasis from the circumstance that a large part of the tax revenues, now being collected by the government under the new methods and the high levels of taxation which were developed with the war, are undoubtedly eating into the current savings and, therefore, the current capital accumulations of a very important

section of the nation's saving class. The tax revenues, which it is estimated will be collected by the government for the fiscal year 1920, aggregate six and a half billions of dollars. The great bulk of this revenue comes from surtaxes on the higher grades of income and from excess profits taxes on business. Large incomes and the earnings of business are, also, the source from which has hitherto come a principal, if not the principal, part of the savings of the country and the new capital, which from year to year became available for the use of industry.

Receivers of large incomes for the most part do not spend all their income for current consumption but invest a considerable proportion, probably the greatest portion, in industrial undertakings. The stream of saved income that flowed from this source into industry, supplying it with new capital, now flows, to a large extent, into the public treasury, supplying it with the means of meeting its current disbursements. The current expenditures of the government are not to any appreciable extent to be regarded as economic expenditures. It is only indirectly, as the income of the government is used in liquidating war contracts, etc., and thus flows back into the channels of business, that any considerable portion of it will be saved and accrue to the capital account of the country.

While it is impossible to estimate the extent to which the diminution in the flow of savings from the incomes of those who bear the main burden of high taxation is thus offset, it does not seem likely to be sufficient to invalidate the proposition that the extremely high direct taxes, which are being levied by the government of the United States, are eating into the current capital accumulations of the country to a degree that is considerable. The effects will be serious unless the loss thus arising is made good by increased saving on the part of all those in the community whose ability to save has not been impaired as a result of the financial situation occasioned by war. This means, to put the matter briefly, that the increased savings of the many must make up for the diminished savings of the few, so long as the financial needs of the government, or other conditions, or considerations of social policy, make it necessary to keep direct taxes at their present high levels.

Affect of Taxes on Production.—Questions of direct taxation are commonly regarded only from the points of view of fiscal expendiency and distributive justice. In ordinary circumstances these points of view may suffice, but in the present extraordinary circumstances of our country and the whole world, a more fundamental point of view must be taken. With the capital account of all the leading countries of the Western World seriously depleted, as a consequence of the great war, and with the burden of direct taxation reaching a point never before thought possible, the effects of taxation upon the productive economy of the several countries must be given thoughtful study. The war and every experience, which has followed since the armistice, has taught us to think in terms of production. A considerable section of the population of Europe —the most highly organized part of the world—is and has been in a state of want with destitution and, in some parts, starvation threatening, because of insufficient production. Production, more production, more efficient production, is an urgent need of the world

in the throes of this, the most severe after-war crisis ever experienced.

Saving and Production.—In these circumstances fiscal and financial questions must be looked at from the point of view of national economic interest, as well as from the point of view of social justice. Looking at the scale of our present direct taxation from the economic point of view, it does not admit of question that the rate of growth of capital in the United States will be seriously affected unless, to repeat the statement, the savings of the many make up for the decrease in the savings of the few. Dependent as the growth of industry and production is upon the stream of capital with which it is fed, saving is the urgent need of the hour. Saving is producing. More of us must make our dollars produce. Things, which are now scarce and dear because production is inadequate, will then become more abundant and prices fall.

Saving and the Price Level.—But saving will do more than this to improve the financial situation. Saving will not only bring down prices by increasing the production and supply of goods but will bring down prices by reducing the supply of money. The most troublesome feature of our financial situation is the high and rising level of prices. Recent events are showing that high and rising prices present more than a financial difficulty. They are the cause of our acute cost of living problem and the industrial unrest and general unsettlement of mind and the financial instability which invariably attend great price disturbances. Reasonable stability of value in the monetary standard is necessary to a good state of mind in a highly organized industrial community. Instability inevitably breeds unrest and unsettlement.

Until the upward movement of prices is arrested and the dollar begins to recover its lost value, we may expect to have an unsatisfactory and troublesome financial situation with the evil economic and social consequences, which such a situation invariably entails. To correct the existing financial and price situation is, therefore, tantamount to taking the most important step toward the correction of our current social and industrial unrest. People are everywhere uneasy and apprehensive because of the declining value of the dollar. To restore the dollar to something more nearly approaching its normal value and to reduce prices may, therefore, be said to be the most important financial problem before the country.

Factors Controlling Price Level.—That there is no way of handling the problem that does not involve the practice of thrift and saving by all sections and classes of the country upon an intensive scale becomes clear on examination of the financial factors that have helped to bring prices to their present levels.

Increased Currency and Underproduction.—Speaking in broad terms, changes in prices proceed from changes in the relation of the volume of purchasing media (what, in common speech, is called money) to the volume of goods offered for sale. When people, generally, have more money in their pockets, or more credit at their banks, with which to buy, than there are goods on the shelves of shopkeepers, which can be bought, goods get dear and money gets cheap. In other words, when there is more money seeking to buy goods than there are

goods seeking to buy money, prices rise and their rise will go on as long as the increase in the supply of purchasing media or money proceeds at a faster rate than the increase in the supply of purchasable goods.

GOVERNMENTAL BORROWING

That excessive supply of credit and currency has been one of the principal influences in putting up and keeping up prices in the United States is incontestable. That excessive borrowing by the government has been the main occasion of the excessive increase in the volume of purchasing media seems pretty clear, if, by *excessive* borrowing be understood, not borrowing in excess of what the government has required to defray its expenditures, but borrowing in excess of the current savings of the country.

Extent of Government Borrowing.—The Treasury of the United States has borrowed, during the past two years and a half, over $25,000,000,000. Of this amount about $21,500,000,000 have been borrowed by the issue of bonds. The remaining three and a half billions have been borrowed by the issue of short-dated certificates of indebtedness. Twenty-five billions in the course of two years and a half is an extraordinary amount of money to raise, even for a country as rich as the United States. It averages about $1,250 for every American family. It is an average of $500 per year for each such family. That such an amount could be taken out of the average income of the American people, except as they greatly reduced consumption and greatly increased savings, needs no demonstration.

Extent of Loans from Savings.—People of moderate means who did their full duty in subscribing to the loans of the government by actually cutting down their current expenditures and paying for their bonds in dollars actually saved out of their incomes know from their own experience that there is no method by which such vast loans can be taken up and paid for except by the practice of severe economy. It was because all of the people did not practice economy to the requisite degree that the savings of the country were not adequate to take up the securities issued by the Treasury as genuine "savings loans." To the extent that the borrowings of the government were in excess of what were paid for by savings, the loans became "credit loans" and, as such, resulted in a great increase in the volume of the country's circulating credit and its currency.

Expansion of Banking Credit.—The following table shows for selected dates, under the heading of "Deposits," the increase which has taken place in the volume of credit extended by the banks (national and state banks and trust companies) and, under the headings "Loans and Discounts" and "Investments," the operations against which the newly created credit was extended. The dates selected are: (1) the eve of our entry into the war; (2) the armistice; and, (3) the most recent date for which data are available:

Date	Gross Deposits	Loans and Discounts	Investments
	(In millions of dollars)		
March, 1917	24,863	17,020	4,955
November 1, 1918	28,862	19,792	8,909
October, 1919	33,159	22,275	9,751

The above figures, which are partly official and partly estimated, show that, between March, 1917, and November 1, 1918, 3,999 millions of

new banking credit in the shape of so-called deposits were created—an increase of 16.1 per cent. Similar comparison for the item "Loans and Discounts" shows that between the same two dates there was an increase of 2,772 millions—an increase of 16.3 per cent; and that, for the item "Investments" for the same dates, there was an increase of 3,954 millions—or 79.8 per cent.

It will be noted that the most striking increase of percentage is found in the item "Investments" between the dates March, 1917, and November, 1918, when an increase of close to four billions of dollars is shown in the investment holdings of the banks. This was the period when the government's great bond-issuing operations were at their height: The banks were under pressure to make heavy investments of their credit in subscribing for government loans; they were also extending credit accommodation on liberal terms to their customers for the like purpose. This was also the period when the total currency in circulation was increasing most rapidly—the increase between March, 1917, and November, 1918, amounting to over one billion and a quarter.

But the expansion of banking credit did not come to a stop with the armistice. Figures given in the table above show that expansion has continued at an alarming rate since then. And the end is not yet assuredly in sight. Between the dates November 1, 1918, and October, 1919, 4,297 millions of dollars of new credit have been created; loans have increased 2,483 millions of dollars; and investments 842 millions of dollars.

It thus appears that for the whole period, March, 1917, to October, 1919, 8,296 millions of dollars of new banking credit have been created, most of which was undoubtedly occasioned by the exigencies of government financing.

It has recently been estimated (*Federal Reserve Bulletin* for October, 1919, page 942) that the banks of the country hold among their investments over four billions of dollars of government war securities (Liberty Bonds, Victory Notes or Certificates of Indebtedness) and, among their loans and discounts, two and a half billions or more representing loans made to customers secured by government obligations and made, presumably, for the most part, in aid of customers' subscriptions to government loans. Altogether then, it appears that the banks are carrying, directly or indirectly, between six and seven billions of government war obligations against which has been extended newly created credit in the form of deposits or currency.

Influence of Bank Credit on Prices.—This newly created credit, like the new currency, constitutes an addition to the supply of the country's purchasing media. It is for all practical purposes to be regarded as money. It is acceptable as a means of purchase and payment. It acts on prices substantially the same as money. It is the new and large addition to the country's circulating media, resulting from the placement of so large a portion of the Government's loans in the form of "credit loans"—that is, in excess of what the current savings of the people would support—that is largely responsible for that feature of our financial situation which has resulted in the continuing high prices, of which there is so much complaint.

The best way to improve our price situation is to improve our credit situation. Indeed, no great improvement in the price situation need be

looked for until the credit situation is materially improved. The banking and credit situation will improve as the large amount of war loan paper and investments now carried by the banks is liquidated. There is only one way to liquidate them and that is out of the proceeds of savings. Those who are debtor to the banks for credit accommodation in aid of subscriptions to government loans must be made to take up their obligations to the banks out of their individual savings, if it is at all possible for them to do so. If they can not do it, or, rather, to the extent that they can not do it, others must in effect do it for them; others must save and out of their savings buy Liberty Bonds in the market. Thus will the market for government bonds be improved and thus will it be made possible for the banks to liquidate by selling in the market bonds, which they have bought on credit, and their customers, the bonds which the banks are holding as collateral. Such liquidation will at once reduce the loan and investment accounts of the banks on the one side and their deposit liabilities on the other; and it will, in addition, bring a return flow of currency to the banks. It is thus that there will result from the process of saving, reduction in the volume of purchasing media and decline of prices.

Reduction of Inflation by Saving.—If everyone had done his full duty during the war by voluntarily rationing himself and saving to the requisite degree, most of the expansion of credit and currency and inflation of prices, from which we are suffering, would have been avoided. Because there were financial slackers who did not do their duty, expansion of credit and currency was carried to the point of inflation. The evils of inflation, of which the President warned the nation in his War Message of April 2, 1917, are now upon us in the shape of high cost of living, profiteering, speculation, reckless extravagance and industrial unrest and strife. These evils are to be reckoned as a part of the cost of the war. They are the cost of inflation. That cost must now be met. Until it is met, those evils will remain to plague us. Indeed, there is danger that they will grow worse through postponement or through national self-delusion that they can be escaped. Recent months have given dramatic evidence that the appetite for inflation, like most other appetites, grows by what it feeds upon. Inflation is breeding inflation. A halt must be called. Saving must again become the order of the day. We have too much credit and too much money outstanding in the United States—above all, too much unproductive credit. Its volume must be reduced. There is but one sure method: that is saving.

Governmental Thrift Through a National Budget

By Charles Wallace Collins
Author of *National Budget System and American Finance*

THE American government is the greatest spender in the world. In the past, before the war, expenditure of public money attracted little or no attention in this country. Our vast sources of national wealth had hardly been touched. The money for the running of the government was raised largely by indirect taxation and the people did not feel that they were really supporting the government. Many times in the quarter century preceding the late war the treasury received more money than was necessary to meet appropriations by Congress. In other words we were often embarrassed by a surplus in the treasury. This situation was due largely to a tariff policy which was formulated and put into effect not primarily with the idea of supporting the government but for other reasons ordinarily described under the term "protection." The revenue side of financial administration was not directly related to the expenditure side.

During this period there was no demand for economy in the administration of the government made by the people. The question of financial policy from the standpoint of government economy never entered into political discussions either in the congressional or presidential elections. No emphasis was laid on the method of procedure in arriving at the financial needs of the government or on the method of procedure of Congress in granting funds for this purpose. We felt that we were too rich to bother about these matters. The expenditure of a few hundred million dollars or even a billion dollars appeared of no great consequence to a strong young nation in possession of the richest country in the world.

Thus grew up without studied adaptation a system of financial procedure which is peculiar to this government. It was not based upon a scientific study of the problem of budgetary procedure but represents accidental accretions and circumstantial adjustments from time to time without coördination. The method has never at any time proven satisfactory to either the executive or to Congress but nevertheless, being a practical people, we were able to make it work. We even financed the war under it without plunging the government into bankruptcy, but surely no other nation could have stood the strain.

National Financing in the Past

A brief description of this system, or lack of system, may be in point. In the first place the bureau chiefs, or such other heads of the various organization units which have disbursing officers who spend the money appropriated out of the public treasury, make estimates embodying their requests for the expenditure of money for the coming fiscal year. These estimates are drawn up in the early fall and are required to be transmitted to the Treasury Department by October the fifteenth. They represent the plans and ambitions of the bureau chief. He is, if he is a good official, naturally interested in the expansion and development of the service under his jurisdiction. The greater

his service the more honor to him. He does not make his estimates with a view to the total expenditure of the government. He is interested in his own bureau. According to the practice of Congressional committees there is a strong likelihood that some reduction will be made in his estimates. In anticipation of this the practice has grown up of estimating rather liberally so that if cuts are made ample funds may be left to carry out the plans of the bureau.

The heads of the departments have the legal authority to revise the estimates of the various bureaus under them. In fact it is the assumption of the law that these bureau estimates are really the estimates of the head of the department. But the head of the department has no special organization to enable him to make this revision and he certainly has no time to do it himself. In some cases he may order certain reductions in the estimates of a bureau but this is exceptional. There is no systematic attempt to supervise and restrict the demands of these various bureaus for money out of the Treasury.

According to law these estimates for all of the departments and establishments of the government are sent in to the Secretary of the Treasury. He is required to classify them and have them printed in what is known as the Book of Estimates. The Secretary of the Treasury has no power to review the estimates nor can he make or suggest reductions. His relationship to them is mechanical and formal.

The Secretary of the Treasury transmits the Book of Estimates to the House of Representatives. He does not include in it an estimate of the revenues and suggestions for new taxation if necessary. When the estimates reach the House they are parcelled out to a number of independent appropriating committees. These committees hold hearings on the estimates relating to the particular services over which they have jurisdiction. They call before them the various officers of the government responsible for the preparation of the estimates in the first instance. They are submitted to a rather lively examination the purpose of which is to discover the facts upon which such estimates are based. It is customary at these hearings for a contest to arise between the bureau chief and the committee—the bureau chief, on the one hand, trying to sustain his position in order to secure the amount estimated and the committee, on the other hand, trying to find the weak spots in the position of the bureau chief. The bureau chief has the advantage, in that he alone is in possession of the intimate knowledge of the operations of his bureau upon which knowledge alone a correct basis for an intelligent estimate can be found. It sometimes happens that committees, in utter despair of getting at the real situation, will make arbitrary cuts in the estimates in order to reduce expenditures.

Each of these appropriating committees of the House, after the close of the hearings, reports out one or more appropriation bills; and these, fourteen in number followed by one or more deficiency bills later in the year, make up the sum total of the appropriations out of the public treasury for the annual support of the government. These committees do not consult with each other in the course of their work nor do any of them attempt to gain a view of the finances of the government as a whole. When the House has passed an appropriation bill it goes

to the Senate where the same process is followed as to the hearings and reports.

The defects in this system of finance are readily seen. The observer is struck with the astonishing lack of control both in the executive departments and in Congress. At no stage, from the preparation of the estimates to the final passage of appropriation bills, is there any fixing of definite responsibility or any view of the total demands which are being made upon the national treasury. There is no plan and no real financial policy. No one knows until near or after the close of a session of Congress how much money must be raised in taxation from the people to meet the needs of the government.

WHERE THE FAULT LIES

Who is to blame for this state of affairs? It has become popular of late to criticize Congress for our system of finance. Many writers are indulging in wild statements about the extravaganee of Congress and the supposed orgy of "pork-barrel" and "log-rolling" legislation. Some of these writers are even attempting to discredit Congress before the American public. This crusade against Congress is based upon a misconception of the real facts of the situation. Congressmen are not reformers. There are, indeed, always a few reformers in Congress but that is not their business. The American congressman is elected by a local constituency and he is sent to Washington to represent primarily the interests of his district. He is, it is true, a national legislator and the opinion of Congress as a whole will always conform very closely to the public opinion of the American people. But if he fails to represent the local interests of his district another man will be elected who will do so.

Congress is to blame for not providing a modern and business-like budget system for the administration of national finance only in the sense that Congress alone can change and correct the existing system,—and who can say that there has been a nation-wide demand for such a reform? Out in the various congressional districts there has not been in the past any considerable agitation over the necessity for a budget system. The demand for action along these lines has come chiefly from academic sources, from writers interested in the science of public finance, and from certain highly organized commercial organizations in the eastern part of the United States.

Furthermore it seems not to be generally understood that Congress, under the present system, is the only branch of the government which has consistently fought for economy in the administration of the government. It has always cut the estimates turned in by the executive branch of the government. There has not been a single year within our recent history in which the appropriations made by Congress were not less by several millions than the executive estimates for the support of the government.

Great emphasis has been laid on the extravagance and wastefulness of Congress through "pork-barrel" and "log-rolling" methods of appropriating money for public buildings and river and harbor improvements. The fact is, that appropriations for these purposes amount to a very small per cent of the total appropriations,—probably not more than 1 or 2 per cent in the past and for the future they will be perhaps less than 1 per cent. But even these appropriations are not made

without official estimates in each case.

Criticisms could be directed at the executive branch of the government with better grace. The executive bureaus are constantly reaching out for more money and sending estimates in to Congress for greater and greater demands upon the public treasury. There has been no really concerted effort on the part of the executive branch for economy in expenditures. It is nobody's business there to take this point of view and the tendency, therefore, of the executive departments is wholly towards greater expansion and greater demands for money.

War and National Finance

Our entry into the war has completely changed the financial situation. We have emerged from the conflict with a public debt of about $26,000,000,000 calling for an annual expenditure for interest, of more than $1,000,000,000. We are further faced with a vastly increased current annual expenditure and it is doubtful if our total appropriations for the support of the government will be less than $5,000,000,000 for several years to come. This means for the American people a continuation of high taxes in order to furnish the necessary revenue and the continuation to a considerable extent of the high cost of living.

For the first time in our history the people are interested in financial policy and financial reform. There is an increasingly strong demand for economy in financial administration in order to protect the Treasury. The people are realizing as never before that it is they who are supporting the government. The idea of a budget system is beginning to gain wide prevalence. The Sixty-Sixth Congress almost immediately upon convening began to take action looking toward the reorganization of our financial system. The House and the Senate each appointed a select committee to devise a budget plan and the plan reported out by the House committee was adopted by the House October 22, 1919. This plan is embodied in the so-called "Good Bill" introduced by Chairman Good in May, 1919. Chairman McCormick of the Senate committee has also introduced into the Senate a budget bill similar to the plan introduced by him into the House in 1918.

Plans for Budgetary Reform

Both of the plans embody the general principles of budgetary reform as advocated by economists and students of finance for many years past. They include the installation of machinery insuring centralization of executive responsibility and control. The President is to submit to Congress at the beginning of each session a national budget which shall contain on the one hand a revised and coördinated statement of the financial needs of the government in the form of estimates of expenditure, and on the other hand an estimate of the revenues of the government with recommendations for new taxation when the estimated revenues appear insufficient to meet the estimated expenditures. The detailed work of the revision and the coördination of the estimates will be done through a budget bureau situated either in the office of the President or in the Treasury Department. This bureau is to have a permanent personnel of highly trained financial experts and economists who will be protected in their positions by the civil service rules.

These plans provide also for an independent audit of the government accounts which is to be accomplished by

consolidating the existing audit forces which are now under the executive and putting them under an independent establishment at whose head shall be a Controller-Auditor General. The purpose of this is to furnish an independent instrument of criticism of the executive expenditures and a report upon them to Congress.

Such in brief, is the kind of budget system which is likely to be adopted in the near future for the federal government. Its beneficial effects can be readily seen. It will abolish nearly all of the vicious practices so loudly complained of at the present time. It would be a step of the greatest importance in the direction of national thrift. The bureau estimates would be scrutinized and controlled at their source. They would be made with reference to the needs of the bureau in its relation to the needs of the government as a whole. When the estimates reached Congress in the form of a business-like financial program,—that is a budget,—they would have already been reduced to the *bona fide* needs of the government. They would not be as now a conglomeration of unrevised departmental requests but would be a scientific presentation of a well thought out plan embodying in one single, simple and intelligible statement the financial policy for which the President is willing to assume responsibility before the American people. The treatment of this budget by Congress in the same centralized way insures here also a definite fixing of responsibility and a unity of legislative action.

The independent audit completes the circle of control by providing a constant and alert critical organization which will report to Congress and to the public any deviation by the executive spending officers from the letter or the spirit of the appropriation laws.

The taxpayer may rest assured that in the near future there will be in vogue in the federal government a system of financial administration, known as the budget system, which will, as near as system can guarantee that no money shall be taken from the people except that it be to meet a real need of their government. The stream of revenue which must be poured into the national treasury, in many cases at a sacrifice by the taxpayer, for many years to come, will be protected from wild and extravagant demands of overreaching executive bureaus.

LIMITATIONS OF A BUDGET SYSTEM

No system, however, no matter how well thought out will produce in itself absolutely satisfactory results. It will be necessary for the American people to lend their strong moral support to Congress in the working out of this great reform. They must abandon whatever is left of their local point of view of spending money out of the national treasury. A national financial policy looked at from the point of view of national betterment is possible only through the coöperation of the rank and file of our vast citizenship who control the activities of the membership of the two houses of Congress.

It is not to be expected that a budget system will cause any considerable reduction in the total expenditures of the government. It is not claimed that this reform will bring the amount of appropriations anywhere near to where they were at the outbreak of the war. Expenditures depend upon the policy of the party in control of the government for the time being. If it be one of retrenchment, expenditures naturally would be reduced. If on the other hand it be a policy of ex-

pansion, causing the government to enter into new fields of service they will be proportionately greater.

The budget system as a means of financial administration does not answer the question as to what services the government shall undertake year by year. That is a question of politics and one the decision of which must be made by the people at the polls. An extravagant government in the political sense may be a government which has the approval of the majority of the voters. The only protection from this sort of extravagance is the inevitable criticism which arises from an alert minority, a criticism which if well founded may result in an overthrow of the majority at the next election.

What the budget system is intended to do, whether under a policy of expansion or under a policy of retrenchment, is to guarantee that the estimates presented to Congress are economical and are properly coördinated with each other in their relation to the total proposed expenditure, and further, to the estimated revenue to be raised by taxation. It is possible, therefore, to have sound business-like estimates under what might be regarded as an extravagant financial policy. The budget system has done its part when it has given this protection and when it has presented a picture of the finances as a whole to the people and to Congress each year before any legislative action has been taken.

Capital Needs for Education in the United States

By David Snedden
Teachers College, Columbia University

EACH of the writers invited to contribute to the Academy's volume on Thrift has probably found the difficulties of his task multiplied by the fact that money values, in which we must perforce define our conceptions of expenditures, savings and capital, are themselves now in process of extraordinary flux. This difficulty is especially evident in discussing investments in education where capital needs are increasing almost proportionately with commodity and wage prices while the growth of assessment values, on the basis of which these needs must largely be met, has decidedly lagged. The writer of this paper will therefore ask that his readers always interpret his statements on the assumption that money values as of June 30, 1914, have remained stable. When we shall have gotten over the confusion produced by the war and the darkening of counsels engendered by those bent on exploiting their particular theories of safety and progress we shall doubtless find ourselves able to make increases in teachers' salaries, in valuation of property for assessment, and the like, in such a way as to distinguish intelligently between those adjustments which must be made because of depreciation in nominal money values and those that should represent permanent changes in terms of real values.

The raising of revenues for public purposes has always taxed the ingenuity of governing authorities. The tornadoes of revolution have more often been generated under the atmospheric pressure of excessive or unwise taxation than from any other cause. When it is recalled that from one-third to three-fifths of all revenues raised by state and local taxation in America goes to the support of public education the problems of taxation and of wise expenditure confronted by our governing authorities on behalf of public schools are evidently far from simple. The conduct of the schools of the people now constitutes by far our largest public enterprise. It is obviously an enterprise in which, unlike roads, or fire protection, or even policing, returns must be taken considerably on faith. Public schools cannot be made self-supporting as can the post-office and water supply systems. Only strong faith in the permanent values of education can sustain a people in taxing itself, and especially its richest and most powerful members, heavily and persistently for the support of schools which are constantly growing more costly.

In estimating the capital needs of education during the next few years several factors require separate consideration: (a) What will be probable increases along lines of educational effort—salaries of teachers, buildings, equipment, longer school year, smaller classes, etc., in elementary and secondary schools and in state colleges and other than special schools—already securely established and progressively developed during the last fifty years? (b) What will be probable expenditures for new types of public education —vocational, physical, continuation —now apparently developing? (c)

What demands for experimental forms of education may be expected? (d) What changes may be expected in the abilities of the states (or the nation participating) to support public education? (e) In what respects are there now preventable wastes in education, or in what respect can we, without increased expenditures, materially improve the ultimate effectiveness of our school offerings?

ANTICIPATIONS SUMMARIZED

We can imagine Uncle Sam as a thrifty *pater-familias* making his decennial budget. "What should the nation plan to spend on its public schools?" His advisers submit observations and recommendations which are first summarized, and then elaborated, as follows:

1. During the last half century the cost of public education has increased faster than either population or taxable valuation, due largely to lengthening of school year, general establishment of free high schools, extending age of required attendance, increasing teachers' salaries, especially in cities, and provision of more expensive supervision.

2. All present tendencies point to the necessity of continued growth in rate of expenditure at least equal to that of recent decades in order to reach adequate minimum standards of effective schooling. This means more particularly: A school year of at least 160 to 180 days in rural districts; a minimum age of compulsory full-time school attendance to the fourteenth birthday: provision of facilities for all persons seeking high school education; more expert supervision; and salary increases sufficient to attract and hold properly qualified teachers.

3. All present tendencies point to the acceptance in the near future by the public of the following as necessary expansions of public education: provision of some facilities for vocational education for all; compulsory continuation school attendance at least to 16 and probably to 18; provision of some form of health supervision for all schools; and provision for some special education of adult immigrants.

4. Certain extensions or modifications of public education are now much discussed, but their probable realization, or, if realized, their probable addition to the cost of education, are still very problematical. The involved problems are indicated by these questions: Is it likely that kindergarten education will be extended? Will junior high school education be considerably more expensive than the grade education it replaces? Will reorganized liberal secondary education prove much more expensive than present high school education? Will the public demand a much longer school year for schools of general education? Must the schools retain a substantial proportion of men teachers? Must the schools seek more expensive service from modern language teachers? Must physical training be provided in cities? Can vocational education be made, in part, self-supporting?

5. Certain redistributions of the burdens of supporting public education may well be expected in the light of present tendencies: (a) Heretofore the major part of the cost of schools has fallen in the primary instance as a tax on property; the present tendency is towards utilization of less direct sources. (b)

The larger political unit, the town rather than the district, the county rather than the town, the state rather than the county, and as a beginning, the nation rather than the state, tends to become the supporting area for a portion of the cost of education; and the contributions of the larger area are so exacted and distributed as to tend to equalize the burden of school support on the one hand and its resulting advantages on the other.

6. Education is still far from being efficient. In many respects its aims are poorly defined, and of course here methods may well be ineffective to the zero point. Even where aims are fairly concrete and demonstrably valid, methods are often bad. Sound principles of public policy clearly point to the desirability of providing at public expense for a substantial amount of research into aims, methods and administration of education as a means of reducing waste and increasing the value of the returns from present and future investments in education.

EXPENDITURES FOR PUBLIC EDUCATION

During the last half century growth of expenditures for public education has been considerably more rapid than growth in population. The statistics of the United States Bureau of Education are confessedly neither complete nor exact as regards the two or three decades following 1870; nevertheless they are sufficiently reliable for purposes of general comparison.

In 1870 there was expended for all public school purposes $1.64 per capita of population; in 1915 the amount was about $6.03. In 1870 the amount spent per pupil in average attendance was $15.55; in 1915, it was $40.43.

During this half century the ratio of children of school age (5 to 17 years inclusive) has fallen from 31 per cent to 26 per cent of the total population, due in part to diminishing birth-rate and in part to greater longevity of an increasingly healthy people. This decrease in a sense tends to lessen the burden of supporting schools; but this is far more than offset by the lengthening of the school year, the operation of compulsory attendance laws, and the desire of constantly increasing numbers to seek upper grade and high school education. In 1870 57 per cent of persons 5 to 17 years of age were enrolled in public schools; in 1915 nearly 75 per cent. In 1870 the average length of the school term was 132 days and the average number of days attendance made by each enrolled pupil was 78; in 1915 these figures were 159 and 121 respectively.

Some other figures are worthy of attention as showing progress of schools and school expenditure. In 1870, 38 per cent of all teachers were men; in 1915 men constituted less than 20 per cent in spite of the growth of high schools. In 1870 the average monthly salaries of all teachers was just under $29; in 1915 it was slightly over $68. Since 1870 the value of all school property has increased more than ten fold—from $130,000,000 to $1,567,000,000.

None of these figures can be considered exact, owing to the necessarily imperfect methods of reporting used by the states; nevertheless they are sufficiently accurate to present a fair exhibit of the evolution of the measurable aspects of public education during the last half century. Faults of interpretation are, of course, easily possible. Perhaps the best single measure of

educational expenditures is suggested by the fact that whereas in 1870 the amounts expended per day for each pupil enrolled are computed at 7 and 12 cents respectively for salaries and for all expenses; in 1915 these amounts were 14 and 25 cents.

Viewed in the aggregate, expenditures for public education seem large. But when set in comparison with other less useful forms of expenditure they seem far from striking. The American people now spend upon each of two items—tobacco, and display advertising—sums considerably in excess of all outlays for public education. In years just passed they spent on alcoholic beverages at least twice and, were proper methods of computation employed, probably three times what was spent for education from the kindergarten through the university.

Achievements in Public Education

Space is not here available for an enumeration of our achievements to date in public education. Considered from the standpoint of the ideals of those zealous for the progress of education these achievements are disappointing enough; but viewed historically and comparatively they justify sincere admiration. Free elementary schools are now practically available to all the people; and as respects free and accessible high school education, America surpasses all other countries. State universities, agricultural colleges and higher technical schools are widely available and generously supported. Nearly all states have free schools, often including free boarding accommodations, for the deaf, blind, and semi-delinquent. The length of school year has reached a satisfactory optimum in most cities. The teaching force of the United States is composed usually of persons of good native abilities and social endowments. Except in rural districts, school building has made great advances in the last three decades. Most of the states now provide text books and other working facilities to pupils. Compulsory school attendance laws are nearly universal and the minimum age at which cessation of education is permitted steadily rises towards fourteen in all states, while in some that goal has been passed.

It has already been noted that the cost of public education has been increasing faster than population and taxable valuation during the last fifty years. There can be no doubt that such rate of increase in terms of real values will continue for many years to come unless the nation should be overtaken by economic catastrophe. All indications are that the people will create the demands. The number of days of school session will be increased in rural schools; the proportion of teachers with professional training will be steadily greater; teachers of inferior personal qualities or training will less frequently be employed; salaries (always speaking in terms of real values) will be raised somewhat, as a means of attracting teachers of superior native fitness and equipment; buildings and teaching facilities will be somewhat better; and in some city schools, at any rate, size of classes will be perceptibly diminished.

Many campaigns are now under way looking to increasing salaries. Most of these have been undertaken, primarily, of course, to aid teachers in keeping their nominal salaries somewhat correlated with rising prices. But in a degree these campaigns represent something more fundamental. In educationally progressive communities, school boards, executives, and ex-

perienced teachers, as well as no inconsiderable part of the public, realize that if the general level of teaching is to be raised, better compensation must be offered as a means of attracting and retaining the kinds of service capable of giving improved service.

In many particulars, standards of public education are yet far below what will be demanded when public opinion becomes better informed. Our rural schools in general now assure literacy, but not enough beyond. Curricula of high schools and upper grades are still without valid objectives. Classes in city schools are often excessively large. Nowhere is there adequate provision for experimental work looking to the scientific improvement of aims, methods, and administration of education.

In terms of money values of 1914 it is safe to predict that expenditures on public education will so rise during the next decade that by 1930 we shall be spending $10 annually per capita of population on the kinds of schooling already generally established, and excluding possible developments into new fields hereafter to be considered.

PROBABLE EXPANSIONS OF PUBLIC EDUCATION

1. *Vocational Education.*—The most absorbing and significant movement in educational thought and practice during the last decade has centered in vocational education. There exists a rapidly growing conviction that facilities for vocational education ought to be available for all; but beyond this, public opinion has not yet gone. Educators themselves are by no means agreed as to what constitutes effective vocational education. But the best informed students are probably agreed on the following conclusions:

a. All adults during all historic times have followed vocations. Since instincts and childish imitation give only meagre preparation towards meeting the requirements of all but a few primitive forms of production, it follows that all adults have at some time and place been *trained, developed* or *educated* (in the broadest sense of the term) for the exercise of one or more vocations. But such vocational education may be the direct and systematized training of a vocational school, or the systematized by-education of organized apprenticeship, or the "pick-up" education of actual participation in first, simple and then more complex phases of the work itself. Now the essence of the "current" movement for the development of vocational schools reflects in reality a social conviction that systematized and effective vocational training should be substituted for the unsystematic and wasteful vocational education which has been the best available for about 90 per cent of all workers.

b. Apprenticeship vocational education is now available for only a small per cent—probably less than 8—of all workers; and its inherent characteristics are such that it may be expected in the future, as it has for many years in the past, to decline in effectiveness.

c. For the large majority of vocations as now developed and specialized, vocational education cannot all be given in some pre-working stage, as is now largely the case with professional education; nor can it consist chiefly, or even largely, of more or less abstract studies of the technical phases of such vocations; nor need it necessarily require extended time at any one stage.

It is difficult, therefore, as yet to estimate the probable cost of an adequate system of vocational education. Between the ages of 15 and 25 we can assume that there are in the United States 2,000,000 persons in each year group, all of whom at some time, or at different times, should be given opportunity for vocational education. Good vocational training for reasons that need not be detailed here is more expensive per pupil per hour than other forms, ranging from 50 cents per student-hour for medicine and engineering to 20 cents per student-hour for the trades, and reaching as low as 10 cents in certain commercial and industrial vocations. Some forms of vocational education can be made partially self-supporting. Nursing education is that now. The best forms of secondary agricultural education can meet one half their total cost. Upgrading industrial education rapidly approximates a condition of self-support as respects all but instruction and overhead charges.

For the next ten years, taking the American people as a whole, it is certain that the investment of $50 on each of the 2,000,000 persons referred to above, somewhere, or at different intervals, between the ages of 15 and 25, or a total annual expenditure of $100,000,000, would give splendid returns in the increased economic productiveness, as well as the incidental good citizenship, of the entire people.

2. *Compulsory Continuation Schools.*—The war has given a great impetus to the enactment of legislation providing for compulsory continuation schools. For a number of years before 1914 American educators had been convinced that one of the most successful features of German education was its continuation schools; and a few progressive states had begun experimental work in their establishments. Present indications are that all states not primarily agricultural will require continuation school attendance to 16 or 18 within a very few years. It is safe to predict that such attendance will affect at least 1,000,000 children of each year age group, or a total of from 2,000,000 to 4,000,000. Adequate schooling for these on the basis of a minimum attendance of four hours per week can hardly be expected to cost less than $8 annually or a total of from $20,000,000 to $30,000,000.

3. *Physical Education.*—It is now generally agreed by all students of education that a school of any type offers an excellent center for health oversight of a public nature. Already it is generally required that instruction in hygiene and sanitation shall form a part of the offerings of all public schools. It is believed by many experts that, given needed facilities and instructors, important results could be accomplished in physical training in most types of schools. Much experimental work in the general field of physical education is now under way, and in spite of the vagueness of many of the objectives proposed, it seems very probable that within ten years all progressive states in the Union will be expending from two to five dollars annually, in addition to present outlays, on the medical inspection and physical education of each child in the public school—or in round numbers if all the states were equally progressive, $100,000,000.

4. *Education for Adult Immigrants.*—For many years prior to the war America freely received and even welcomed millions of immigrants from Europe and elsewhere. Recently these have come chiefly from countries very

different from our own in language, customs, and political traditions. The test of a national crisis showed that some of these had become well-disposed and useful Americans while others had not. Public opinion is now such that if extensive immigration hereafter takes place, an extensive program of special education for the more mature immigrants must be provided. There is now before Congress a measure providing for a nationally supervised and aided program of special education for illiterate and imperfectly educated adult aliens now here. This bill is based on the assumption that a comprehensive program of such education would now cost the nation and the states together approximately $25,000,000 per year. The future costs of work of this character will obviously depend upon the extent to which immigration is permitted. If work of a thoroughgoing quality is to be undertaken it is a fair guess that at least $100, distributed over several years, would be required properly to "Americanize" each person over 14 years of age coming to the United States from a non-English speaking region.

UNSETTLED PROBLEMS

These are a number of unsettled problems in American education, the solutions of which will probably materially affect educational expenditures during the next twenty years, but the actual results of which can only be guessed at as yet.

1. *Kindergartens.*—The actual functions performed or capable of being performed by the kindergarten for children normally circumstanced is yet very uncertain. Children from poor home and street environments clearly derive much gain even from a meagre 600 hours of schooling per year out of their more than 4,000 waking and playing hours. But there are nearly 6,000,000 children in the United States between 4 and 6 years of age. To provide kindergarten education for all these will cost at least $200,000,000 per year. Of these 6,000,000, two-thirds, certainly, are being reared in normal environments, judged by reasonable historic standards. Is the kindergarten urgently needed for them? An influential body of fine sentiment today answers, yes! But it is certain that much study must yet be given to the possible functions and actual achievements of the kindergarten in contributing to real educational values before educational authorities can reach dependable decisions.

2. *Administration of Secondary Schools.*—There is rapidly taking place a readjustment of the administrative organization of schools for children from 12 to 14 or 15 years of age. This is primarily a movement to render education for these ages more efficient. Whether the reorganized schools will cost a great deal more than the present upper grade and first year high school work is difficult to guess. Certainly it will not cost less.

3. *Reorganization of High School Courses.*—Far reaching attempts are also being made to so reorganize high school courses and methods that the resulting education shall be more genuinely "functional" as liberal education. Neither of these movements specially contemplates reduction in size of classes or increases in salaries of teachers. The junior high school will manifestly require equipment more expensive than that now provided for the upper grades. Probably in all cases some increase in expenditure will be necessary to realize the objectives desired.

4. *To what extent will men teachers be required in the schools of the future?*—Not only in America but elsewhere men have been steadily disappearing from elementary schools, and the proportion of men teachers in secondary education is diminishing wherever co-education prevails and professional standards are rising. The fundamental cause for this of course is that men and women cannot compete on equal economic terms in teaching or in any other calling. The "modal" groups of men teachers consist normally of those who, in the expectation of society, are supporting, or are preparing to support, families. These constitute the "dominant" economic demand for compensation which if it is not met in teaching, will be sought elsewhere. But the modal group of women teachers consist of celibates who only occasionally have responsibilities for the support of others than themselves. Their dominant economic demands are, therefore, much less than those of men. These conditions develop, of course, in largest measure among teachers over twenty-five years of age. Under twenty-five the relative demands of men and women are not so dissimilar. This situation is, of course, complicated by some special conditions. Where men teachers past the usual age of marriage work side by side on equal terms with women, the men are apt to be of inferior ability and personality to the women, for the reason that teaching ranks for man as a twentieth or thirtieth in the order of best vocations, whereas for women it is often, apart from marriage, the first, or, even in large cities, the second or third best. Now if women teachers of given native abilities, training and maturity can do certain kinds of teaching apparently as well as men, school authorities must employ them since their services can be procured at much lower cost.

A similar problem appears in the case of young versus elderly women teachers. A very large proportion—always over 60, and often 80 per cent—of all women who enter teaching remain only from two to five years, after which they marry. Hence in rural areas often 80 per cent of all teachers are in effect girls giving service only during their pre-marriage years; while in cities at least half are frequently of that class. But these young women teachers make only low economic demands—in this respect being little different from young farmers, clerks and even engineers and lawyers. They are anxious for experience; they are little concerned with saving for the future; they are inexperienced in bargaining; and often they live at home all, or part, of the year. But women over thirty who expect to remain permanently as teachers must save for sickness or old age. They cannot usually live at home. They are, therefore, at a perpetual disadvantage in competing with the "dominant" mass of young teachers. Their compensation under the operation of the law of supply and demand tends to be kept down to that of the beginners—that is, unless it is evident that they can render a kind of service that these younger persons cannot offer.

Now we possess no satisfactory knowledge as yet of the places and conditions which require the more expensive of men as against women, or of mature, as against young, women. Women teachers are entirely right in demanding "equal pay for equal work." School authorities are entirely right in procuring service from those who, *in the long run*, will give it for least compensation. On the other

hand, if in a given position a man of equal native and acquired powers to a woman, can, by virtue of his "masculinity," render a grade or kind of valuable service which she cannot, then of course school authorities must have his services even if he holds out for a salary that will enable him to support two adults and three children. It is almost useless to discuss these vexed questions without particularizing. Always assuming equal native powers, training, and maturity, can a man do better or worse work than a woman in teaching a kindergarten? In directing high school athletics? In teaching high school girls singing? In teaching woodwork to boys of fifteen? In teaching all subjects to fourth grade children? In teaching citizenship to boys of sixteen? In teaching the carpenter's trade to boys of seventeen?

Similar problems appear in connection with mature and young women teachers. Assuming equal native abilities and initial professional training, how much superior as a teacher for a third grade of forty pupils in a suburban community is a woman of forty over a woman of twenty-two? In general do young women of twenty to twenty-five succeed well as teachers of seventh grade and eighth grades as now organized? Are young women just out of college acceptable teachers of high school subjects? Do we find special types of simple work for the younger teachers?

Now it ought to be obvious that if, for particular types of schools or courses of instruction men teachers, the mature as well as the immature, are essential, that these will have to be paid substantially larger salaries than celibate women of the same age, general ability and professional preparation. Otherwise these men will seek employment in fields which will permit them to rear their families appropriate to the ideals and standards of a people not committed to the practice of "race suicide."

5. *Cost of Physical Education.*—Reference has already been made to current discussion of the need and feasibility of physical training as a distinct phase of physical education. If it should prove expedient to embark upon expensive schemes of physical training, the largest expenditures will doubtless first be required for city children. The probable cost of such work is still wholly problematical.

6. *Financing Vocational Education.*—There are those who believe that good vocational education can be made partly self-supporting. Properly organized and conducted vocational schools can undoubtedly turn out a large amount of productive and even marketable work. But it is the present writer's conviction that it will prove much more in accordance with sound public policy to apply the net returns obtained for such product to a payment of a partial wage for the learners than towards the support of their schools. The psychological and social reasons for such action in terms of creation of incentives promoting right standards of workmanship and the like can readily be understood.

THE SUPPORT OF PUBLIC EDUCATION

The ecomonic production and accumulation of wealth from which must be taken by taxation the means of supporting public education have been increasing considerably more rapidly than population during the last half century. In spite of the absorption of free lands we have no reason to infer that the same proportion of increase

will not take place during the next few decades, even taking account of the destruction of wealth occasioned by the war. Demands for good education and abilities to support it easily, probably increase at faster ratios than per capita incomes or accumulations subject to taxations, notwithstanding the competition of spending for more visible and immediate gratifications. But the effect of changes in the distribution of either larger incomes or accumulations—towards concentration in a few hands or distribution among many—on the ease with which public revenues can be increased seems yet a very obscure subject in the literature of taxation.

Two tendencies towards equalizing among all the members of state and nation the burdens of supporting public education and which have been moderately operative in the past may have accelerated development in the near future. The first of these is an enlargement of the area of taxation. Historically each family paid for the education of its own children; then the property holders, with or without children, were taxed to educate the children of the community; later, the proceeds of county or state taxation are used to supplement local effort; and now we are considering insistent proposals that the nation shall contribute. It is realized that local communities, rich in children and poor in taxable resources, have already often reached reasonable limits in their efforts to support schools.

The second tendency is towards the discovery of taxable values other than real property. Already in many places the limits of desirable taxation of real property have been reached. Franchises, incomes, and other values will increasingly come in for taxation even within states and municipalities. If the national government is directed to contribute to the support of schools its revenues for this purpose will, of course, be derived exclusively from other than taxation of real estate.

PREVENTION OF WASTE

There are many kinds of waste in current education and these have various sources. Fundamentally the largest of these today is found in the misdirection of teaching effort, a condition for which teachers individually are only slightly responsible. In our schools, and especially in those for children from 12 to 18 years of age, the actual values of the objectives now defined are much more matters of belief and faith than of knowledge. We spend annually, for example, from $7,000,000 to $10,000,000 a year in teaching French and German in high schools. The methods employed are not always good; but a far greater source of wasted effort is found in the fact that there exist no clear cut objectives of modern language instruction. We allow or even encourage superficiality in the learning of these languages. Nowhere is it clearly indicated whether the practicable goal held in view is a reading knowledge, a speaking knowledge or a writing knowledge or merely an almost wholly inserviceable combination of all three. A more thoroughgoing knowledge than we now possess of the educational needs of American society would probably show the wisdom of investing even more money than we now spend on modern language instruction; but it should be spent in adequately training a relatively small number of persons so that the nation would be assured of a reasonable diffusion of interpreters (in the cultural and social sense) of

French, Japanese, German, Spanish, and Russian literatures, history and current thought.

We spend many millions annually in teaching algebra and geometry to girls and boys who will never make any genuine application of the results of their efforts. It would certainly be worth while for Americans to spend heavily for the teaching of citizenship; but it is very doubtful whether the history studies now taught in elementary and high schools "function" perceptibly in good citizenship. Without doubt a large part of the money we now spend on the teaching of manual training, music, English language, and science is as completely wasted as was the money spent for medicine and expert healing service in the dark ages, medically speaking, of the eighteenth and previous centuries. As regards objectives, most education is today not farther advanced than was medicine in 1850, agriculture in 1830 or chemical industry in 1800.

But teachers and other educators are only partially responsible for this apparent "backwardness" of education (it is not, of course, a real lagging, since the sciences on which education must eventually rest are only now in process of development). Society has not collectively reached the point where it is ready to devote to scientific study and research the means necessary to define the objectives and improve the methods of education. Money spent in rightly directed research in education would even now be abundantly repaid in increased economy and efficiency.

In some of the literature of propaganda recently widely distributed there are manifested tendencies to demand increased expenditures for education in a spirit that is the reverse of "thrifty." Millions are asked, not for research into the possibilities of "physical training" but for the support of physical training itself, notwithstanding that even those who have given the subject fullest consideration can as yet offer us only a host of aspirations and beliefs as to what such training should be designed to accomplish. It is insistently urged that teachers' salaries should be greatly advanced, and reckless and superficial comparisons of teachers' salaries are made with those of other workers, quite regardless of age, sex, family and other economic conditions which play so large a part in determining the operations of the law of supply and demand. No convincing evaluations have yet been made of the kinds and degrees of service that are now given or may, under slightly changed conditions, be reasonably expected from that host upon whom we now so largely rely for teaching service—namely, our brightest and best young womanhood, giving a few youthful, pre-marriage years to teaching. Propagandists, ignoring questions of varying optimum standards of teaching service for children of 6 to 10 as against those of 16 to 18, or of the teaching of geography as against the teaching of French, claim that we must pay much more in the future than in the past for all kinds of teaching service. Possibly; but the public will increasingly want to be shown that educational leaders have fairly clear ideas of their specific objectives and that they have carefully studied the most effective as well as the most economical means of realizing them. Young workers, 18 to 25 years of age, can produce much valuable service in this world. Perhaps they can long continue to do so in certain fields of teaching, but not in all. If so,

we must discover their places of maximum usefulness and the character and amounts of the training necessary to produce, not ideal, but "optimum" service.

Now that public education has become so gigantic a public enterprise the demands of economy no less than those of efficiency demand, on the part of a people devoted to right ideals of "thrift," that scientific studies of its best objectives and methods and of its needed personnel should be extensively supported and promoted.

An Analysis of the Need of Capital for Transportation in the United States

By Holcombe Parkes
Associate Editor, *Railway Age*

THE American railway plant needs at least $3,500,000,000 of capital investment today. Within the next three years it will need at least $6,000,000,000 and perhaps $7,000,000,000; it needs this amount to enable it to handle the traffic now offered for transportation and the additional traffic that will be offered within the next three years. It needs it to give service commensurate with its place in our national life. It must have it if this nation is to weather the reconstruction period and prosper.

There has been an insistent cry lately for greater and greater production as an antidote for the poison of the bolshevistic doctrines which have permeated organized labor's ranks. In theory greater production—by means of which we may be able to return once more to the unhampered development of our industries—may be successful. But in practice greater production, to such an extent as would be necessary to lead labor back to the "honest day's work for an honest day's pay" basis, would more than likely result in national disaster—if our transportation facilities, inadequate for our present rate of production, are not largely developed. In other words, greater production without still greater development of our transportation plant is impracticable.

These estimates are perhaps appalling to the layman. Whatever the reaction, a few hours of delving into railway statistics, will convince even the most skeptical that, based upon past records of service rendered by given facilities, they are really the minimum. As a matter of fact, no one can state within many millions the need of the railroads for capital. In testifying before the House Committee on Interstate and Foreign Commerce recently, Alba B. Johnson, president of the Railway Business Association, representing between 2,000 and 3,000 railway supply companies, said:

> So far as we are aware, nobody has estimated for you the magnitude of the improvement to existing lines which the public interest requires to be made within any specified period in the future. If you were in possession of such estimates, who shall say how far short they would fall of the needs which may actually become manifest? Even if you had the power of divination to make approximate guesses at the requirements expressed in physical units and in units of work performed, what human agency can be brought to bear in the year of grace 1919 to compute the cost of carrying out such projects? Nobody knows what labor and materials will cost. How, then, can anybody predict within many millions a year how much capital would have to be raised to carry out projects approved?

The Inadequacy of Transportation Today

It is unquestionably true that our present transportation system is inadequate. Its inadequacy is well known to the public because of the projection of the railroad problem into the arena of common topics. The consequent question that naturally arises in the minds of those upon whom this inadequacy has been impressed is, "Why have our railroads been allowed

to so deteriorate?" And the question remains unanswered unless the interrogator has the patience to review years and years of statistical reports throughout which the intensifying of regulation, the growing inefficiency of labor, rising costs of both material and labor and other similar conditions are so intermingled that condensation is practically impossible. However, the one man in the United States, who, because of his position and because of his access to all of the facts, should be able to present a brief answer recently attempted to do so. Walker D. Hines, Director General of Railroads, in a recent address said:

> In the year or two preceding federal control of the railroads, the normal additions to cars and other transportation facilities were not made because prices were very high, labor was scarce and financing on the part of the railroad companies was unusually difficult. During the first year of government control there was a severe limitation on the amount of material that could be taken from other war purposes to use for providing additional railroad facilities. When the year 1919 began we were being confronted with a new difficulty in the way of adding to the facilities, and that was that federal control naturally was approaching its end from the time the armistice was signed. More than that the failure of the appropriation on the 4th of March last, which had been sought by the Railroad Administration to enable it to meet its obligations already incurred, postponed the construction of even the 100,000 cars that had been ordered, because they could not be paid for, and the equipment companies naturally had to slow down on their production. The railway companies were unwilling to furnish money for new equipment because of uncertainty as to their own future, so the result has been that the Railroad Administration since the year of 1919 has not been in a position to provide any additional facilities except those which were needed, as an emergency measure, unless the railroad companies were willing to furnish the money, and the result is that at the present time the Railroad Administration has been unable to order or obtain authority to order any cars in addition to the 100,000 that were ordered last year.
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> So that that inadequacy of facilities, which were inadequate before federal control began, and which have become increasingly inadequate since that time, principally accounts for the fact that the facilities now are not sufficient to handle all of the enormous business which is offered to the railroads of the country.

TRANSPORTATION REQUIREMENTS OF THE FUTURE

So much for the fundamental causes of the present inadequacy of railroad facilities. What of the future? The cry for greater and greater production will undoubtedly be answered. As a matter of fact it has already caused enormous advances in the tonnage of commodities of every description offered to the railroads for movement. The result will be that the public interest will require that certain standards of service, of maintenance and of development be adhered to. It is safe to assume that these standards will be higher than those maintained before our unfortunate experience in government control and certainly much higher than those maintained during the past two years. The absolute minimum capital investment that will be required in the public interest, therefore, will be that sum which will place the railroads of the country in a position to fill successfully the nation's present transportation requirements plus whatever capital is necessary to provide facilities for handling any future increases in production. Computed from this viewpoint and on the basis of the past annual developments in relation to the service rendered, it is possible to arrive at a figure which may be said to be the minimum amount of new capital required by the railroads. There are several means of arriving at such an estimate. It may be estimated (1) on the basis of the increases which have occurred during normal periods, in the capital investment and in the

amount of traffic handled, and (2) by finding the deviation, during the period of government control, from averages established for capital expenditures for certain purposes during normal periods, to which must be added the approximate capital required to maintain the averages during the coming year and to provide the additional facilities necessary to give adequate service for increased traffic.

THE DEFICIT IN CAPITAL INVESTMENT AS COMPARED WITH TRAFFIC INCREASES

Mr. Hines, in outlining the causes of the inadequacy of service at the present time, said: "In the year or two before this country entered the war, the railway companies were unable materially to increase their facilities because of the difficulty of raising new capital." The intimation is, of course, that the trouble began in 1915. During the ten years, prior to this time, or from June 30, 1905 to June 30, 1915, freight tonnage (ton-miles) increased 61 per cent and passenger traffic (passenger-miles) increased 36 per cent. During the same period the investment made in new facilities was $5,300,000,000 or 44 per cent. Since June 30, 1915, the increase in freight traffic has been approximately 57 per cent and the increase in passenger traffic 32 per cent and the new investment in facilities but $1,900,000,000. The discrepancy during the past four and a half years can easily be seen. If the investment during this latter period had been as great *in proportion to the increase in traffic* as it was during this ten-year period, it would have been approximately $5,000,000,000. These figures, however, are based upon the purchasing power of a dollar between 1905 and 1915. Since that period this purchasing power has been greatly diminished. The 1905–1915 dollar during the 1915–1919 period had but approximately two-thirds of its former value. Equated on this basis the investment during the last four and a half years has been but $1,300,000,000. Taking this last figure as the actual investment during this period, it will be seen that capital investment in railways has fallen behind approximately $3,700,000,000 in four and a half years. At the present time, however, the purchasing power of the dollar has been still further diminished and we now find that it requires two dollars of capital investment to accomplish the same results that one dollar accomplished during the period from 1905 to 1915. If this deficiency in capital investment is to be made up now, and on the basis of the purchasing power of a dollar in 1919 or 1920, it will be found that it will take twice as much money, or $7,000,000,000 to make up the deficiency in railroad investment which has been allowed to accrue since 1915.

The statement has already been made, however, that it would require $3,500,000,000 rather than $7,000,000,000 to enable the railroads to provide adequate transportation facilities today. Substantial progress has been made during this four and a half year period, especially in 1916 and 1917, in increasing the efficiency of the present transportation plant. Car loading has been greatly increased, economies have been effected in the operation of cars and, since the Railroads' War Board was organized in 1917, facilities have been pooled and certain advantages accruing from unified control have been utilized. For this reason it is probable that the estimate of $7,000,000,000 is somewhat exaggerated. In order to be

certain that this development of efficiency is recognized, one half of this amount of $7,000,000,000 or $3,500,000,000 has been taken as representing the existing deficiency of investment.

This compilation brings us up to the present year. Any estimate at the present time as to the capital needs of railways during the year 1920 will in all probability be greatly in error for the reason that it is practically impossible to foretell what the condition of industry generally will be and how far reaching will be the effects of the cry for greater production. As already indicated the average annual capital investment during the years from 1905 to 1915 was approximately $530,000,000. Equating this sum on the basis of the present purchasing power of a dollar it will be seen that it would require at least $1,000,000,000 a year to provide the same amount of facilities during future years as were provided on an average during each year of this ten-year period. Were the existing deficiency of facilities to be made up during the next three years and in addition the normal growth of traffic during these three years provided for, the total investment in these years would be from $6,000,000,000 to $7,000,000,000. This estimate is based on the assumption that traffic will not increase more rapidly than it did during the period from 1905 to 1915.

DEVELOPMENT OF CERTAIN TRANSPORTATION FACILITIES

To substantiate the estimate already made and to indicate why and where certain capital expenditures are required, it might be well to investigate briefly the relation of the development of certain transportation facilities during normal periods of years and during the past four abnormal years.

The four items for which a large portion of capital expenditures are made are: mileage, freight cars, passenger cars and locomotives. Briefly the increase in the railroad mileage of the United States between 1905 and 1915 was approximately 40,000 miles or an average of 4,000 miles per year. Contrasted with this is the fact that during the past four years there has been practically no increase in mileage at all. It is true that during these four years, certain new mileage has been built, but the miles of road abandoned or torn up during that period have fully equalled the total number of new miles. If the average number of new miles had been constructed during each one of these four years we would have at the present time approximately 16,000 additional miles of line.

Insofar as freight cars are concerned, there has been an increase in their number in service of only 5 per cent during the last four and a half years as compared with an increase in the freight traffic of 57 per cent in the same period. Contrast this increase in traffic and the number of freight cars in service with the records established for the ten years ending with 1915 and the deficit is only too apparent. During this latter period the freight traffic of the country increased 61 per cent and the number of freight cars in service increased 36 per cent. The average cost of a freight car today is $3,000, and the present deficiency of freight cars is at least 300,000.

Practically the same conditions prevail in the matter of passenger cars. Between 1905 and 1915 the passenger traffic was increased 45 per cent and the number of passenger cars in service 36 per cent. Since that time the increase in passenger business has been approximately 32 per cent and there

has been practically no increase in the number of passenger cars. The deficiency in the number of passenger cars must be 10,000, and the average cost per car now is approximately $30,000.

In the matter of locomotives similar conditions prevail. In the period from 1905 to 1915 the number of locomotives in service was increased approximately 30 per cent. Since that time, and in spite of the enormous increase in traffic, there has been practically no increase in the number of locomotives. A locomotive today may be said to cost $50,000; and if we take the conservative view that only 10 per cent more locomotives are needed, this means a deficiency in locomotives of about 7,000.

To make any comprehensive estimate, it is necessary to compute not only the capital requirements for these four items, but also for a large number of other as important or even more important items, such as sidings, yards, shops, stations, etc.

THE FIELD FOR CAPITAL INVESTMENT

It is not possible to discuss the necessity for the investment of capital in transportation without taking cognizance of the chances of this investment actually being made in the future. Whether it will be made or not depends a great deal upon the provisions of such legislation as will be passed by Congress. At the present time the Cummins Bill prepared by Senator Cummins, chairman of the Senate Committee on Interstate Commerce, appears to be receiving the earnest consideration of law makers at Washington as the basis of whatever legislation may be framed. Insofar as its relation to the investment of capital in transportation is concerned, the bill provides that the Interstate Commerce Commission shall permit rates sufficient to produce a net annual operating revenue of 5½ per cent figured on the basis of the property of the railroads of each territorial group as valued by the commission. An additional ½ per cent may, in the discretion of the commission, be permitted to be earned and invested in unproductive improvements. The vital question that this provision raises is: Will capital flow into this field of investment under these conditions in sufficient quantity to gradually eliminate this deficit in development which has accrued since 1915 and provide an adequate system of transportation for the country in view of the greatly increased traffic which will undoubtedly be offered?

Certain interests claim that such a provision will enable the more prosperous roads to earn from 6 to 15 per cent while the less prosperous roads will be protected by a minimum return of 5½ per cent. The provision states, however, that if a railroad receives an income of over 6 per cent, allowing ½ per cent to be turned to unproductive improvements, the excess is to be divided between a reserve fund and a general railroad contingent fund. Therefore, other interests maintain that this division of so-called "excess earnings" will result in practical financial starvation. The result has been that there has been much opposition to this portion of the measure and it is not improbable that it will be greatly modified, especially in view of the necessity for capital investment to again bring our transportation system to something approaching a state of adequacy. Fortunately this phase of the bill will not be foreclosed by favorable action upon the part of Congress. The rate

of return can be changed if experience proves that it is inadequate to attract the necessary capital.

Increased production has been urged as the means of successfully combating industrial unrest. To make this movement successful there must be a still greater simultaneous development of transportation facilities. To provide for this greater development of transportation facilities enormous sums must be invested in our transportation plant. It rests upon Congress to pass such legislation as will attract capital into this particular field of investment.

American Farmers' Need for Capital

By Edward H. Thomson

President of the Federal Land Bank, Springfield, Mass.

THE American farmer is too generally thought of wholly as a laborer. He is both a laborer and a capitalist. The returns from capital invested in the farm business are nearly equal to those from his labor. The average investment per farm according to the 1910 Census is $6,444 which, if considered on the basis of 5 per cent, would yield an income of $322. Investigations by the several State Agricultural Colleges and by the U. S. Department of Agriculture have shown that the average annual labor income derived by the farmer is from $300 to $500 depending upon the region and the general conditions covering the particular area. In addition to this the farmer has the use of the farm house to live in and those products which the farm furnishes towards his family living. The needs of the American farmer in the way of capital have never been adequately understood and in most cases he has been left to get along with what money he could secure either by unfavorable terms on mortgages, or by paying high interest rates on short term loans.

Capital Invested in American Farms

Table I shows the total value of farm property in the United States in 1910 and its distribution in the way of land, buildings, equipment, and live stock. The increase in amount from 1900 to 1910 is 100.5 per cent, the increase varying from 118.1 per cent in land to 60.1 per cent in live stock.

The forthcoming Census will undoubtedly show a still greater increase in all forms of farm property. It would not be surprising if the total reached $100,000,000,000 in farm property in the United States in 1920, a certain percentage of which would be due to inflated or depreciated currency values existing at this time and the consequent inflation in land values in some parts of the country.

The manner in which the farmer has his capital invested varies according to the kind of farming and the land values prevailing in a particular region. For instance in the central or corn belt states where corn, small grain, and hay are the prevailing crops, and where live

Table I

Value of Farm Property in the U. S. (1910 Census)

Value of Farm Property in U. S. in 1910		Per cent of total value represented by	Aver. value per farm
Land	$28,475,674,169	69.5	$4,476
Buildings	6,325,451,528	15.4	994
Implements and Machinery	1,265,149,783	3.1	199
Domestic Animals	4,925,173,610	12.0	774
	$40,991,449,090	100.0	$6,444

stock forms only a small part of the business, fully 90 per cent of the total investment is represented by land and buildings, and the balance in equipment, live stock, and supplies. In some of the eastern states, particularly in the grazing areas where land values per acre are comparatively low and where the major business is dairying, not over 60 per cent to 65 per cent of the total investment would be represented by land and buildings while possibly 20 per cent would be represented by live stock. Thus the amount of money in proportion to the total investment that a farmer might borrow on the security of his real estate would vary somewhat according to the region and type of farming followed.

Relation of Farm Capital to Income

There is a distinct relation between the amount of capital invested in the farm business and the income received by the farmer. This means that the size of the business has a direct relation to the income. Data given

Table II

Capital Related to Labor Income—Farms Operated by Owners—Northern Livingston County, N. Y.

Capital	No. of Farms	Aver. Labor Income
5000 and less	87	$291
5001–7500	80	407
7501–10000	112	480
10001–15000	164	769
15001–20000	62	1001
20001–30000	55	1062
Over 30000	18	1691

in Table II as shown by Warren in *Farm Management* are for a district in northern Livingston County, New York. It is noted that the average labor income on 87 farms with $5,000 capital or less is $291, whereas the average income of 62 farms with $15,000 to $20,000 capital is $1,001. By labor income is meant the sum received by the farmer after the farm expenses have been paid and after deducting 5 per cent interest on the capital invested. In addition to this he had the use of the farm house and such products as are furnished by the farm. Similar investigations made in the corn belt and the cotton belt indicate the same relation. This is to be expected, for much greater economies of production through more efficient use of men, teams, and machinery are obtained on the larger farms, resulting in greater returns to the farmer for his supervision and labor. Such data indicate the desirability of a farmer having adequate capital commensurate with his ability as a manager. In very few instances do we find a farmer, even of unusual ability, able to make a substantial income through the efforts of labor alone. The small farm intensively cultivated is desirable where labor is cheap and where markets for such products are near at hand.

The typical American farm is developed on the basis of product per man rather than product per acre, a basis wholly unlike the agriculture of the European and Oriental nations. In the main, the typical American farm has developed since the event of improved machinery and means of transportation. In New England and other eastern states farms that were developed prior to this period and on the hand labor basis have been unable as a rule to meet the competition of the larger and more cheaply operated farms in the central and western states. Only by completely changing the type of farming, in the way of truck crops and dairying to supply the large manu-

facturing centers in New England, has the eastern farmer been able to succeed. Hundreds of thousands of acres of land not suited to such a change have reverted to woodland and timber.

Capital is even more important to the tenant farmer than to the farm owner. Data in Table III, also

TABLE III

Capital Related to Labor Income—Farms Operated by Tenants—Northern Livingston County, N. Y.

Capital of Operator	Number of Farms	Aver. Labor Income
1000 or less	20	$368
1001–2000	65	481
2001–3000	54	610
3001–4000	27	626
4001–5000	16	869
More than 5000	22	1282

taken from Warren's *Farm Management*, show the relation between the tenant's capital and the annual income received for his labor. As the tenant's capital is wholly invested in equipment, live stock, and supplies, he should be able to operate the same sized farm as the farm owner who had approximately four times that capital. We have noted that the farm owner, with from $15,000 to $20,000 invested, received an average income of $1,001, and from Table III we find that tenants with $4,000 to $5,000 receive an income of $869. The addition of $1,000, therefore, to the tenant's capital gives him the possibility of the same increase in income as the addition of from $4,000 to $5,000 to the farm owner's capital. Data from several sources on the returns to landlords indicate only a moderate rate of income, averaging from 3 to 5 per cent, while capital invested in equipment and in the hands of an equally competent operator returns from 15 to 20 per cent. The lesson is plain that a young man with a small amount of capital can do very much better financially by renting than he can by buying, leaving out of account the benefits of home ownership and the prospective rise in land values. As a matter of fact, this is the usual procedure in acquiring a farm: first he works as a hired man; second, as a tenant; and third, acquires a farm of his own. No land should be held continuously for renting purposes, but we need some tenant farms in this country as stepping stones to farm ownership.

USE OF CAPITAL FOR FARM IMPROVEMENTS

One of the greatest handicaps to a farmer who is an efficient manager is the lack of capital to make adequate improvements to his land and buildings. Probably no form of investment pays better returns than tile drainage and yet many farmers have to wait a long period of years before they can accumulate sufficient funds to warrant making such an improvement. If funds were available to competent farmers they would be able to make their farms much more profitable from the very outset instead of waiting the best part of their lives before making these improvements. One of the primary factors of successful farming is the yield of crops. If it takes thirty bushels of corn to pay for growing an acre of corn and the grower obtains thirty-one bushels, he has a margin of profit of one bushel. If by tile drainage he can increase this yield to forty bushels and the added investment increases the cost to only thirty-three bushels, he has a margin of profit seven times as great. In the same way, by the addition of more live stock he is enabled to market his crops to better advantage

and to keep his labor employed throughout the year and increase his profits generally, but so often he is handicapped by insufficient farm improvements in the way of buildings.

Large amounts of capital are needed for the reclamation of farming areas when economic conditions show the need for such work. Bringing new farming areas into use when the opening up of these areas will interfere with the operation of existing farms and make them less profitable is not a sound undertaking. But when the needs of the people and the nation demand an increase in area and additional food products, capital can be very profitably employed in the way of reclamation, drainage, irrigation, and the like. In the past when thinking of reclamation, attention has always been directed to bringing into use new lands generally on the frontiers and far removed from markets. There is a possibility that some of the most profitable reclamation would be in restoring some of the semi-abandoned lands in the eastern and southern states, lands which are desirably situated as regards highways, transportation, and markets, but which are temporarily out of the field of production by reason of misuse or mismanagement during some period in the past. For instance, the addition of a ton of limestone and a certain amount of tile drainage on many hill farms in southern New York and northern Pennsylvania would work wonders towards putting such lands on a profitable paying basis.

FORMS OF CAPITAL NEEDED BY FARMERS

There are three distinct forms or types of loans needed by farmers. First, *the long term or mortgage loan* secured by real estate; second, *a shorter time loan or second mortgage*, based partly upon real estate and partly upon personal property; third, *short term, or crop loans*. Funds for the first type of loan have been supplied through a great many agencies and by private investors. Today, the Federal Land Banks, are adequately meeting the needs of farmers for this type of loan and on a basis that is most advantageous to the borrower. The Land Bank loan is made at a low rate of interest, and has a long time for repayment, as worked out through the amortization plan. The success of the Federal Land Banks in the past two years is the best proof of the soundness of the system and the way they are meeting the needs of farmers for long time mortgage loans. The act should be amended to permit a maximum loan of $25,000 instead of $10,000 to one borrower, for at present the latter figure is inadequate even for the two man farm in most agricultural regions. The law under which the Federal Land Banks operate permits a maximum loan of only 50 per cent of the appraised value of the land and 20 per cent of the value of the buildings. Although this is a most desirable feature of the Farm Loan Act, assuring as it does a high degree of safety and resulting in a low rate of interest, yet the Farm Loan Act does not meet the needs of the young man with limited capital who wishes to begin farming. Such a young man usually needs additional funds based on the remaining security of the farm and oftentimes upon personal property in the form of live stock and equipment which he himself may own. For instance, a farmer buys a farm completely equipped for $12,000, of which $8,000 represents the value of land and buildings. He may have $4,000 in cash

which he uses to pay for the personal property in the form of live stock, machinery, horses, etc. He is able to secure from the Land Bank, a loan of about $4,000 or $4,500 as first mortgage on the farm, valued at $8,000. He still is short the $3,500 or $4,000 necessary to complete the purchase. In some instances the seller is willing to take back a second mortgage for this amount. In other cases very capable young men are unable to finance a farm by reason of having no way to obtain the funds for this second mortgage which would be secured partly by the farm itself and partly by the personal property which the borrower owns. This second mortgage will carry a higher interest rate and will be repaid in larger installments than the first mortgage. When given by a responsible party, experienced in the farm business, it is many times almost as good a loan as the first mortgage. This second mortgage, however, is not of the same nature as the first mortgage loan for an essential part of its security depends upon the integrity and management of the borrower. Although the personality of the applicant is an important feature, yet the Federal Land Bank must primarily consider the value of the farm, in view of the length of time that the loan is allowed to run; the personal element must be largely discounted for the farm may change hands several times before the mortgage is appreciably reduced by payments. There are difficulties in the way of national legislation which will provide funds for these second mortgages. They partake too much of a local character and must be handled by an agency which is in active and close touch with the borrower at all times. There is a possibility that as farmers become better organized and as all their coöperative interests become centered through the Farm Bureaus some system of providing funds on second mortgages may be evolved.

The third type of loan needed by the farmer is a short term or crop loan, usually for three months or six, or even a year. Such loans are based largely upon the integrity and ability of the borrower and being of a local character are almost entirely a function of the local banks. In the strictly agricultural regions local financial institutions are meeting the needs of farmers along this line. In those districts where manufacturing and industrial agencies play an important part the amount of funds available for the farmer for these short term loans is exceedingly limited. Moreover, it is often the young man whose ability and integrity may be of the best but who on account of not having established himself in the region is unable to secure this short term credit, who is in the greatest need of it. These short term loans should not have the privilege of a long period of repayment for they are made primarily to pay current expenses. If a farmer cannot meet such obligations at the end of each year the chances are that he is unsuccessful in his management. The short term credit to the farmer must be made by an agency which comes in contact with the borrower personally and who can watch his daily operations. The usual procedure in securing these short term credits has been for the farmer to give the bank a note with one or more endorsements. Such practice is undesirable in many instances. Since the farmer has become an investor in government securities he is in a position to use these as collateral on a promissory note for short

time loans. This practice will encourage thrift on the part of the farmer to save and be able to purchase Liberty Bonds and other government securities merely for the sake of having such collateral at hand when he needs a few hundred dollars for a short period in his business. In this way he will not need to bother his neighbors or his friends by asking them to sign his note and he will immeasurably improve his credit by such a procedure.

Capital Needs for American Industrial Development

By Francis H. Sisson
Vice-President, Guaranty Trust Company of New York

PROGRESS is the watchword of American industry. The industrial development achieved in this country during the last half-century has been nothing short of miraculous, and this growth, of course, has been accompanied by a general increase in prosperity, for the increase in productive power has stimulated a similar increase in consuming power. Many things that fifty years ago were unheard of—of which the automobile is perhaps the most striking example—are now articles of the widest use. Many luxuries of Civil War days are today in the category of necessities, or almost necessary comforts, among all classes of society. But this wonderful improvement would not have been possible if production had not steadily exceeded consumption. The vast natural resources of this country have been made available because men and women have both worked and saved and because the surplus created by their energy and thrift has made possible productive processes, which have put these resources at the service of mankind.

The Need for Capital Investment

Now the world has just emerged from an era of concentrated destructive activity. Men and materials have been destroyed and industrial energies turned from normal sorts of production to the turning out of munitions and other commodities to be shot away or otherwise annihilated. For the better part of two years this country engaged much of its energies to the same end. Normal productive, constructive industrial enterprise has, therefore, suffered; we are far behind in our savings, in the proper sense of the word. A real deficit in our industrial equipment has been accumulated. With a growing population (and therefore increased consuming power) and greatly expanded foreign demand for our goods (because of the aggravated shortage of savings abroad), our industry finds and will find it difficult to meet demands upon it, if its need for capital cannot be met by a forthcoming supply. Incidentally, the present high price level both appears as a result, in part, of this shortage and necessitates increased investments in terms of dollars, for any development and expansion since everything that must be bought must be paid for at the high prices that obtain.

The Building Industry. No better illustration of the nature of the situation could be given than the building industry. Everywhere a shortage of buildings of various kinds is evident: dwellings, governmental and public buildings, industrial plants, and other sorts of structures. With the concentration of industrial activity on work of all kinds for the government during the greater part of 1917 and 1918, it was necessary to forego a large part of normal building. The deficit, however, must be made up and normal development resumed at the earliest possible moment, if much personal suffering and industrial difficulties are to be avoided.

Building activity reacts, of course,

on various other industries and affects the demand for their products: steel, lumber, brick, cement and housefittings at once suggest themselves. A spurt of building would, therefore, require extension of activities in these allied lines and force them to seek new capital to meet their requirements.

Motor Vehicles. The war was unquestionably destructive in its effects but it did teach or emphasize some valuable economic and industrial truths. One of these was the usefulness and adaptability of motor vehicles. No country is likely to gain more from this than the United States, if full advantage is taken of the opportunity at hand. For 1919 the estimated production of passenger motor cars in this country will be more than 2,300,000, or double that of 1918.

The influence of American participation in the war is once more evident in the great drop in production from 1917 to 1918. The probable doubling in the following twelvemonth, both emphasizes the making up of the deficit of production and increased war-time consumption and points to the greatly increased demand, both domestic and foreign, that has resulted from the lessons brought home by the war. The field for commercial trucks seems destined to grow steadily, and the need for capital to occupy this field will increase proportionately.

Nor must omission be made of the highly important allied line of tractors. Here, above all else, the war provided a stimulus. The almost superhuman feats of "caterpillars" over the battlefields of Europe, on artillery or other tractors or, still more, on tanks, proved beyond all doubt their great adaptability for various uses.

The world-wide shortage on the one hand of man-power and on the other hand of foodstuffs, has made it imperative to substitute whenever possible in agriculture the marvelous powers of tractors for the more limited powers of men and beasts. In this same connection should be mentioned the inevitable increase of demand that will be felt, in the United States and abroad, for agricultural machinery of all sorts. American products are in demand in all countries where agriculture has passed the primitive stages, and here again the replacement of man-power by efficient machinery is certain to take place as a result of the destruction of war.

A moment's reflection will remind the reader of the number of industries affected by conditions in the automobile industry, the diversity of demand for the products of these industries, created by the production in a single year of well in excess of two billion dollars worth of motor vehicles, and their uses. Here is a demand entirely new both in quantity and quality, differing from that for building materials in so far as the latter is one that has had to be reckoned with in the past. Expansion of production facilities is therefore inevitable to meet this growing demand.

Mineral Oil Production. Closely allied to the remarkable development of motor transportation is that in mineral oil production. The run of crude oil for August, 1919, was 32,362,057 barrels, or at an annual rate of 388,000,000 barrels. During October, 1919, there were 157 oil companies organized, with a total authorized capitalization of $613,610,000. No small part of this future, to be sure, represented securities issued or to be issued to take over and hold those of already existing companies; nevertheless, the magnitude of the figures is an interesting index of the

present position of the oil industry in the capital market of this country.

The vast prospecting and producing activity in oil is obviously in answer to a highly intensified demand. This demand is due to a number of causes, of which the increased use of motor vehicles is but one, although the most important. A second is the high price of coal, which makes manufacturers seek elsewhere for fuel. A third is the growing substitution of oil for coal as fuel, apart from questions of present high prices and based on general considerations of fuel efficiency. Ships and manufacturing and other plants are being equipped with oil-consuming furnaces in place of coal burners. There seems to be little doubt of steady growth in this important industry of fuel-oil production and of increased capital needs for the development of the industry.

The search for a substitute for coal as a generator of power has not been confined to increased use of petroleum. More and more attention is now being given to the possibilities of the development of the "white coal" resources of the country; in other words, of water power. For a number of years the discussions of the whole problem of conservation has effected legislation in regard to private development of water power and this development has been not a little retarded by the failure to provide for legitimate exploitation of the national resources in this field. With the industrial situation what it now is, living costs high, coal shortage world-wide and industry impatient to use to the full all available means of progress in order to increase production, there is a growing demand for the harnessing and employment of the tens of millions of horsepower that are now annually going to waste. More liberal legislation in the near future seems not unlikely, which would promptly come into a demand for capital to take advantage of the opportunities thus provided.

New Industries. The war brought into existence or prominence a number of industries that were previously either non-existent or quite in their infancy. There comes to mind at once the *dye industry.* Not only the cutting off of German supplies of dyes and other chemicals concurrently with a demand of great proportions for these products, but the development of certain industries and manufactures whose chief products or by-products are allied to those of the dye industry, brought into being a full-fledged industry in this field. Without going into the possibilities or merits of protection for these new manufactures, it may be said that indications point to a very great probability of permanence for an American dye industry, efficient and self-supporting, which will be able to make legitimate and increasing demands on capital for its continued maintenance and growth. Other "war industries," such as the manufacture of *fibre silk,* chemicals other than dyes, and glass, for instance, have been established and give every promise of permanence in our national industrial scheme.

Production of textiles other than silk, from both animal and vegetable fibres, is constantly increasing in this country, and domestic and foreign demands are increasingly being met by the products of American textile manufacturers. The proportion of American cotton consumed by our own mills has for many years been growing, and further increase is the natural expectation. Inability of European producers to meet demands made on them is furnishing to this American industry as to

others an impetus that should bring about a permanent and not merely a temporary growth.

Industrial Machinery. American machinery, machine tools, and hardware generally, have never before been so sought after in all parts of the world as they are today. The manufacture of such articles is obviously not a war industry, but the conditions that at present obtain are clearly a product of the war and of the inability of the great European industrial nations to meet the usual requirements put upon them by other nations for products of this sort. While this may be considered primarily an aspect of foreign trade, in so far as it reacts on domestic production and needs for capital, it deserves to be mentioned. It has, further, both domestic and foreign aspects. In this age of steel all industrial progress means an intensified demand for steel products. Buildings, automobiles, power plants, mining operations, factory manufacture, railroads,—all these and almost everything else that might be mentioned has as its basis the use of steel. In this country and abroad there is much deferred maintenance to be taken care of, in both industrial plants and railroads.

The Railroads. The railroads, which have been under-maintained during and as a result of the war, must have hundreds of millions of dollars in new capital. It has been estimated, in fact, that these arteries of transportation will require a billion dollars a year for a number of years to purchase needed equipment and to expand their facilities sufficiently to keep pace with the rapid development of the country. And it is absolutely essential that this new capital be made available to the railroads, through the enactment of proper legislation which will enable the roads to earn a fair return on their invested capital and thereby reëstablish railroad credit. Otherwise, business in general throughout the country will inevitably suffer and our national prosperity will be impaired.

American steel plants and machine shops will be called on to supply, both here and elsewhere, tools of production and engines of transportation for the reëstablishment of normal conditions. In the same class is the demand for manufactured products of various kinds that results from the era of shipbuilding and ship operation upon which we have as a nation entered and which gives promise of continuance. The proportions of our foreign trade and its world-wide character afford the highest incentive to domestic operation of shipping lines that has ever been presented to our citizens.

Foreign Trade. Our foreign trade itself deserves mention at this point. There is no question as to the desirability of maintaining an extensive foreign trade, and at the same time there is no question that credit must play a large part in the financing of such trade. Neither banking institutions nor mercantile nor manufacturing concerns can afford to extend necessary credits abroad unless the domestic financial situation is such as to warrant the diversion of funds to this end. And it is clearly not possible for the domestic situation to be all that it should be unless the basis for the extension of all credit, namely, real thrift and saving, is present.

There looms on the horizon, in connection with our foreign trade, the question not merely of current short-term credits for ordinary transactions, but the question of long-term credits to the European nations; in other words, the question of investments in

foreign securities. The commitments of the United States are such, and its interest, both selfish and unselfish, in the welfare of our former Allies is such that it seems inevitable that we should extend to them the financial help which they need in order to return to something like a normal basis of production and a normal balance between production and consumption. This, therefore, affords still another channel for the judicious exercise of thrift and investment power.

There have now been suggested some of the outstanding probable needs for capital for industrial development in the United States. The list is far from exhaustive,—in fact, merely suggestive. There is every indication of increasingly urgent calls for domestic investment in every field of industry. New records are constantly being made in the issues or authorization of new securities. Business men everywhere are seeing and trying to seize new opportunities for the profitable use of capital. The incentive will be still greater when the passing of present abnormal financial conditions makes possible the removal of some of the government taxes which now weigh heavily on certain types of undertakings.

Savings and investment must be and are the basis of all industrial progress. Without them, progress is impossible, for unless more is produced than is consumed, unless a surplus of production is a normal result of human endeavor, retrogression in the struggle with what has been called the "niggardliness of Nature" is inevitable. Thrift was never more necessary in the world's history than it is today.

Capital Needs of Foreign Trade

By Thomas W. Lamont
New York City

JUST what the maintenance of our normal foreign trade requires is a new question for the American people, and also one of great moment. It is in the fore-front of leading public affairs today. Although it is a new question, it is not a question that has come upon us suddenly. Rather it is a situation that has been creeping upon us over the last five years, and its proportions have been steadily growing greater. To be sure, almost everybody has been aware of the tremendous expansion that has been taking place in our foreign trade, yet only a few people have been much concerned with the problems growing out of it. Up to a comparatively recent date the American seller and the foreign buyer have not been much troubled with such terms as "balance of trade" and "rates of exchange," because the loans made by the American Government to foreign governments relieved the American seller and the foreign buyer of much the of burden of financing their transactions.

Relation of Credits to Foreign Trade

A brief review of the last five years will help us to understand the relation of credits to foreign trade, as well as show the capital needs of American foreign trade during that period. In the five years ended June 30, 1919, the merchandise exports from the United States to all countries amounted to $26,536,000,000. They increased from $2,364,000,000 in 1914 to $7,225,000,000 in 1919. After offsetting the merchandise imports from all countries, we still had a merchandise export balance—an excess of exports over imports—amounting, in this five year period, to $13,963,000,000. In addition to this merchandise export balance, our net exports of silver amounted to $382,000,000, making a total balance of $14,345,000,000 in our favor.

Statisticians will, for long years to come, find play for their imagination in figuring how this balance was settled; for no one knows just how much of it was settled by the so-called unrecorded and invisible items. We know that our net imports of gold amounted to $993,000,000. It is estimated that we also loaned abroad $11,702,000,000 including $9,102,000,000 credits, granted by our government to foreign governments. These figures indicate a balance of $1,650,000,000 that was settled by unrecorded and invisible items: such as interest and dividends of American securities held in foreign countries; payment of principal of maturing indebtedness; the repurchase from foreigners of American securities; the payment of freight charges to foreign ship-owners; remittances to foreign countries by foreigners resident in the United States; expenditures of American military and civil establishments abroad, and other similar items entering into the international balance sheet. We must also remember that during the period of our participation in the war our government exported great quantities of goods not only for its own use but also for sale to its Allies. These govern-

ment exports are unrecorded. If they had been added to the recorded exports, the balance settled by invisible items must have been much greater than the amount indicated above.

Now, it is manifest that the great bulk of the export balance was settled by the *extension of credit* to foreign buyers. It is also a fact that these credits consisted chiefly of loans granted by our government to foreign governments. But it is equally true that the American people were able to produce and to save and to lend large sums to foreign buyers, as well as the very much greater amounts loaned to our own government, to enable it in turn to make vast advances to foreign governments, for goods purchased in America by them and their nationals.

FOREIGN TRADE SINCE THE ARMISTICE

Balance of Trade.—Since the armistice was signed in November, 1918, government control of commerce and industry, both here and abroad, has been gradually relinquished, and government administration of private business has been gradually restored to private enterprise. What has happened as regards our foreign trade? With the war over, the excess of our merchandise exports over our imports for the first eight months of the 1919 calendar year was $3,012,000,000, as compared with $1,948,000,000 for the same period in 1918 and $41,000,000, for the corresponding period in 1914. In addition to this excess of merchandise exports, the net exports of silver and gold amounted to $250,000,000. It is estimated that the net repayments of private loans abroad in this period were $225,000,000, so that the balance to be settled for these eight months totaled $3,488,000,000.

How has this unprecedented balance been settled? Of the total our government granted credits amounting to $1,987,000,000. For this period then, $1,501,000,000 was apparently settled by other than visible items. In these it is believed that the settlement by the government of its accounts with foreign governments for expenditures abroad played an important part.

In line with the programme of relinquishment of government control of private business, our government has now practically ceased to lend, and foreign governments have practically ceased to borrow, the sums needed by foreign manufacturers and merchants to pay for goods they want to purchase in America.

Effects of Decreased Credit Facilities.—Because our government advances abroad have been cut off, and American manufacturers and merchants are no longer able to rely upon this resource for the handling of their export sales, the foreign trade problem now confronting the American people has become of the greatest moment. And the foreign trade problem becomes a new one even to people who have been doing a large export business. Such people, who, under government auspices, have been doing a large volume of export business without being much concerned with such matters as "balance of trade" and "rates of exchange," are beginning to find it difficult, if not impossible to transact their export business. They are beginning to have their export orders cancelled, because of lack of credit facilities.

Causes of Foreign Trade Difficulties.—We do not have to go far to find the reason. With government control over commerce largely removed and government financing of foreign trade practically stopped, the tremendous excess of purchases over sales in American mar-

kets by European countries has brought about an extraordinary fall in exchange rates. In other words, the foreign buyer now needs a much greater quantity of his foreign money to buy goods in American markets, and it has become increasingly burdensome to him to purchase such goods.

Take the British buyer for example: With sterling exchange at par, he formerly had to have £206 to buy $1,000 worth of goods in the United States. At the prevailing rate of exchange (this is being written early in November 1919*) he must now have £240 to buy $1,000 worth of goods here. Even if the prices of the goods were no higher than formerly, the British buyer is obliged, owing to the fall in sterling exchange, to pay the equivalent of $1,170 for $1,000 worth of goods bought here. Similarly the French buyer now has to have Francs 8,850 to buy $1,000 worth of goods in America, where formerly he had to have only Francs 5,180. The Italian buyer now has to have 10,820 lira where formerly he had to have only 5,180 lira. Similar comparisons apply to buyers in Belgium, Norway, Sweden, Denmark and Finland. And in this connection it should be noted that in the first eight months of the 1919 calendar year, 58 per cent of the total exports from the United States went to the eight countries mentioned.

THE FUTURE OF OUR FOREIGN TRADE

Now, as to the future. No one believes that America can go on piling up an export balance in its favor of $4,000,000,000 a year. Our exports reached their peak last June, with the staggering total of $919,000,000 for that one month. In that same month our imports were $293,000,000, leaving in our favor a prodigious export balance of $626,000,000 for the month of June alone. It is certain that the turn will come soon, if it is not already here. Early in the past summer foreign exchange rates fell heavily, making it very burdensome to foreigners, as I have pointed out, to purchase goods in American markets, on account of the great premium on the American dollar. In September our exports dropped to $596,000,000, while our imports rose to $435,000,000. So that the export balance in our favor for that month was reduced to $161,000,000.

Decline of Our Export Balance.—There are several reasons why our exports must decline. One is, that the impoverished European countries will sensibly import only the bare necessities for their domestic and industrial existence. American luxuries they will do without. Even though by such curtailment we forego profits, we should be glad to witness such an exhibition of frugality. On the other hand, our imports must increase. Neither should this result be deplored. We should be glad to see agriculture and industry made productive again in Europe, and we ought to welcome the opportunity to buy in Europe those things which the people over there can make for us better than we can make them for ourselves.

Foreign Credit Necessary.—Of course, the net result of the decrease in our exports and the increase in our imports will be, that the export balance in favor of this country will decline. But it is of greatest importance to us that this change should come about gradually and not abruptly. It is vital that the people of Europe should be able to secure in America the bare necessities of their domestic and indus-

* Since this was written the premium on the American dollar has become much greater.—Ed.

trial existence. It is equally important for America to sell those necessities, unless we wish to invite a violent change in our industrial conditions. If the contraction of our export balance is to be gradual rather than abrupt, we must continue to extend credits to our foreign customers, for there will be a considerable export balance for some time to come. We can count on only a limited amount of gold imports.

Extent of Foreign Credit.—It is hazardous, of course, even to venture a guess as to the amounts of foreign credits that will be required in the next year. It is true that our imports from Europe have increased from $22,000,000 in January of this year to $89,000,000 in September. In September our exports to Europe were the smallest, and our imports from Europe were the largest, of any month in this year. But, even in that month, our exports to Europe exceeded our imports from Europe by $272,000,000. Even if we assume that Europe can reduce her purchases from the United States by a substantial sum each month, and can also increase her exports to the United States by a substantial sum each month, it seems likely that the merchandise export balance in favor of the United States against Europe for the fiscal year ending June 30, 1920, will amount to about $3,000,000,000.

No one knows how this balance will be settled. No doubt we shall receive some gold. Probably some American securities still held abroad will be sold in our markets. It may be that some of the indemnities payable by Germany and Austria will be available for our Allies to utilize or pledge in the United States. But no one can tell how much of our merchandise export balance will be offset by the invisible items. If we assume that the invisible items will amount to $1,000,000,000, there will still be a balance of $2,000,000,000, to be settled during the present fiscal year by imports of gold or the extension of credit. How is Europe going to get these credits in America? Will America be able to lend $2,000,000,000 to Europe?

THE ABILITY OF AMERICA TO EXTEND FOREIGN CREDIT

America's ability to lend this sum will depend on the willingness of her people to produce and to save. To be sure, $2,000,000,000 is a great sum of money and yet if the average savings of every person in the United States were only 20 cents per day for 300 days, the aggregate savings produced would be $6,000,000,000. To be sure, some of these savings would be needed by the capital requirements of our own country, but there would still be a large sum that could be loaned to our foreign customers in Europe. During the last two or three years our people have been educated in saving. Twenty million Americans subscribed to our Liberty Loans. Now that the war is over, are we going to throw this education "into the discard," because of a notion that the necessity for saving ended with the defeat of Germany? Are we going to abandon the new habits of thought and action we so recently acquired? Wars are never profitable to a people. Yet it is true that one of the most valuable lessons which the war taught us is thrift, and President Wilson's words are as true today as when he spoke them on April 15, 1917:

> Let every man and every woman assume the duty of careful, provident use and expenditure as a public duty, as a dictate of patriotism which no one can now expect ever to be excused or forgiven for ignoring.

Europe is doing much to restore her own condition. But by herself Europe cannot do all. She cannot return to full health without our help, and that is where every citizen of America has a responsibility. Europe as a whole, with certain countries excepted, needs food, clothing, and raw materials for manufacture.

The tabl which appears below shows what have been the principal articles exported from this country in the first eight months of the 1919 calendar year. It shows clearly what articles Europe is most in need of. It shows also that people all over this country have a vital interest in the problem of our foreign trade and international credits. It shows that the co-operation and exertion of the whole people are needed to produce a surplus of goods for export to Europe, and to save up the capital that we need to lend to Europe to enable her to purchase these goods.

The extension of credit, the render-

EXPORTS OF DOMESTIC MERCHANDISE TO ALL COUNTRIES; VALUES BY PRINCIPAL ARTICLES. EIGHT MONTHS ENDING AUGUST,

	1914	1918	1919
Agricultural implements	$19,946,000	$24,198,000	$32,963,000
Animals	3,472,000	10,734,000	6,407,000
Brass and manufactures of	4,559,000	21,377,000	9,917,000
Wheat	76,805,000	50,774,000	223,909,000
Flour	31,756,000	198,949,000	221,689,000
Other breadstuffs	17,840,000	232,647,000	192,508,000
Cars, carriages and other vehicles	30,361,000	95,831,000	159,655,000
Chemicals, drugs, dyes and medicines	17,792,000	111,145,000	86,352,000
Coal and coke	37,851,000	77,486,000	76,482,000
Copper and manufactures of	89,713,000	143,153,000	78,767,000
Cotton, unmanufactured	236,409,000	385,295,000	674,979,000
Cotton, manufactures of	30,428,000	111,359,000	170,615,000
Electrical machinery, appliances, etc.	13,655,000	38,612,000	62,320,000
Explosives	4,143,000	169,120,000	18,718,000
Fibers and manufactures	7,725,000	22,633,000	18,996,000
Fish and fish products	5,813,000	21,552,000	29,944,000
Fruits and nuts	13,190,000	20,354,000	70,989,000
India rubber and manufactures of	7,679,000	20,756,000	34,826,000
Iron and steel, and manufactures of	140,246,000	704,676,000	684,662,000
Lead and manufactures of	3,524,000	10,861,000	6,348,000
Leather and tanned skins and manufactures of	35,491,000	60,606,000	191,961,000
Meat and dairy products	89,079,000	663,089,000	905,042,000
Naval stores	11,596,000	5,967,000	18,859,000
Oil cake and oil cake meal	10,883,000	882,000	19,312,000
Oils, vegetable	10,368,000	21,831,000	65,510,000
Oils, mineral	95,199,000	227,470,000	214,997,000
Paper, and manufactures of	13,337,000	33,420,000	65,034,000
Sugar and molasses	3,494,000	11,134,000	86,709,000
Tobacco and manufactures of	33,385,000	94,849,000	184,102,000
Vegetables	5,413,000	25,661,000	37,308,000
Wood, and manufactures of	61,279,000	57,762,000	85,402,000
Wool, manufactures of	3,148,000	13,557,000	28,658,000
Zinc, and manufactures of	699,000	13,264,000	18,227,000
Totals—above items	$1,166,278,000	$3,702,004,000	$4,782,167,000
Percentage of above items to total exports	90.62%	93.82%	92.79%
Totals—all exports	$1,286,875,000	$3,945,456,000	$5,153,398,000

ing of help to Europe, is a work for every reader of this volume. If we do not do our share, nobody else will. Europe wants to buy wheat. Our farmers have wheat to sell. Very well, the farmers must sell that wheat on credit; not all of it on credit, but a reasonable share. The farmer will extend that credit, not as to a single shipment of a hundred bushels, but through the method of investing in a thousand dollar bond of some solvent European country that may offer her promise-to-pay for sale here; so that with the credit which she established her people can buy American wheat. And the same formula applies to all manufacturers, the same to all merchants. If we do not want the people of Europe to go hungry and cold, we will produce and save the wheat and the cotton they need, and we will lend them the money to pay for it. This we will do by concerted saving. Our people have proved that they have acquired the habit of efficient providence, of care rather than of carelessness—qualities that go far to affect materially, and for the better, all our national activities.

America must be first in generous thought and action; first in the confidence which she shows in her fellow nations; first in the heart of all the world by reason of her friendliness and helpfulness to the world.

Memorandum on the Economic Situation

By Herbert Hoover

Director General of Relief; Executive Officer of the Supreme Economic Council and of the American Relief Administration

Demoralized Production in Europe

THE rehabilitation of Europe is immediately and primarily a European task but it is of tremendous concern to America and, for that matter, to the entire world. If America and the other countries of the world are to prosper, if civilization is to go forward rather than backward, Europe must get on her feet. She must rebuild and set up her industrial plant and put her men to producing the necessities of life. Although the chief part of this task of rehabilitation must be done by Europe herself, America must, temporarily at least, furnish her not only with food, raw materials, and equipment, but also with credit to finance the imports which she needs.

The economic difficulties of Europe as a whole at the signature of peace may be almost summarized in the phrase "demoralized productivity." The production of necessaries for the European population of 450,000,000 (including Russia) has never been at so low an ebb as at this day.

A summary of the data in the records of the unemployment bureaus in Europe shows that 15 million families are receiving unemployment allowances in one form or another and are in the main being paid by a constant inflation of the currency. A rough estimate indicates that the population of Europe is at least 100 million greater than can be supported without imports and it must live by the production and distribution of exports. This situation is aggravated not only by lack of imports of raw materials but also by low production of European raw materials. Due to the same low production, Europe is today importing vast quantities of certain commodities which she formerly produced for herself and can again produce. Generally, not only is production far below even the level at the time of the signing of the armistice but far below what is necessary for the maintenance of life and health unless there shall be an unparalleled rate of import.

Even prior to the war, European peoples managed to produce from year to year but a trifling margin of commodities over what was necessary for consumption, plus what was necessary to export in exchange for essential imports. It is true that in pre-war times Europe managed to maintain armies and navies, together with a comparatively small class of non-producers, and to gain slowly in physical improvements and investments abroad, but these luxuries and accumulations were only at the cost of a dangerously low standard of living to a very large number. The productivity of Europe in pre-war times had behind it the intensive stimulus of individualism and of a high state of economic discipline, and the density of population at all times responded closely to the resulting volume of production. During the war the intensive organization of economy in consumption, the patriotic stimulus to exertion and the addition of women to productive labor largely balanced the diver-

sion of man power to war and munitions. These impulses have now been lost.

CAUSE FOR DECREASED PRODUCTION

It is not necessary to review at length the causes of this decrease of productivity. Chief among them are the following:

(1) The *industrial and commercial demoralization* arising originally out of the war but continued out of the struggle for political rearrangements during the armistice, the creation of new governments, and the inexperience and friction between these governments in the readjustment of economic relations.

(2) *The proper and insistent demand of labor for higher standards of living* and a voice in administration of their effort has unfortunately become impregnated with the theory that the limitation of effort below physical necessity will increase the total employment or improve their condition. Nor can it be overlooked that this particular line of defense by labor—no matter what its economic results may be—is to some degree the result of offensives against it.

(3) There is a great *relaxation of effort* as the reflex of the physical exhaustion of large sections of the populations from privation, and from the mental and physical strain of the war.

(4) To a minor degree, considering the whole volume, there has been a *destruction of equipment and tools* and loss of organization and skill due to war diversions in addition to a loss of man power. This latter is not at present pertinent in the face of present unemployment.

RESULTS OF DECREASED PRODUCTION

The demoralization in production of coal in Europe today is an example in point of all these three forces mentioned above and promises a coal famine accompanied by industrial disaster unless remedied. It is due in part to the destruction of man power and the physical limitation of coal mines or their equipment. It is due in the largest degree, however, to the human factor of limitation of effort.

The continuation of the blockade after the armistice has undoubtedly destroyed enterprise even in open countries, and has of course prevented any recovery in enemy countries. The shortage in overseas transportation and the result of the uncertainties of the armistice upon international credits have checked the flow of raw materials and prevented recovery in the production of commodities especially needed for exchange for imports from overseas. The result of this delay has been unemployment, stagnation and absorption of capital in consumable commodities to some extent all over Europe.

From all these causes, accumulated to different intensity in different localities, there is the essential fact that unless productivity can be rapidly increased, there can be nothing but political, moral and economic chaos finally interpreting itself in loss of life on a scale hitherto undreamed.

ECONOMIC PHENOMENA

Reaction from strenuous economies.—Coincident with this demoralization in production, other disastrous economic phenomena have developed, the principal one of which is that the very large wage-paid special workers and the large sums accumulated by speculation and manufacture during the war have raised the standard of living for many individuals from the level of mere

necessities to a high level of luxuries. Among many other classes, also, there is a reaction from the strenuous economies against waste and the consumption of non-essentials in all countries. As a result there is today an outbreak of extravagance to a disheartening degree.

Higher Standard of Living.—Another economic change of favorable nature from a human point of view, but intensifying the problems of the moment, has been the rise in the standard of living in large sections of the working classes through the larger and better wage distribution, separation allowances, etc., during the war. Parallel with these classes are those of fixed income, the unorganized workers, and the unemployed upon whom the rising cost of living is inflicting the greatest hardship.

Inability of the Western Hemisphere to Rehabilitate Europe

During some short period, it may be possible for the Western Hemisphere, which has retained and even increased its productivity, to supply the deficiencies of Europe. Such deficiencies, if met, will have to be supplied in large degree upon credits but aside from this the entire surplus productivity of the Western Hemisphere is totally incapable of meeting the present deficiency in European production if it is long continued. Nor, as a practical fact, can credits be mobilized for this purpose for more than a short period, because all credits must necessarily be simply advances against the return of commodities in exchange, and credits will break down the instant that the return of commodities becomes improbable. Further, if such credits be obtained for more than temporary purposes, they will result in the economic slavery of Europe to the Western Hemisphere and the ultimate end will be war.

Consequently the solution of the problem, except in its purely temporary aspects, does not lie in a stream of commodities on credit from the Western Hemisphere, but lies in a vigorous realization of the actual situation in each country of Europe and a resolute statesmanship based on such a realization. The populations of Europe must be brought to a realization that productivity must be instantly increased.

Demand for Economic Change in Status of Labor

The outcome of social ferment and class consciousness is the most difficult of problems to solve. Growing out of the yearning for relief from the misery imposed by the war, and out of the sharp contrasts in degree of class suffering, especially in defeated countries, the demand for economic change in the status of labor has received a great stimulus leading to violence and revolution in large areas and a great impulse to radicalism in all others. In the main these movements have not infected the agricultural classes but are essentially an urban phenomenon.

In this ferment socialism, or communism has embraced to itself the claim to speak for all the down trodden, to bespeak human sympathy, to present remedies, and to be the lone voice of liberalism. Every economic patent medicine has been put under this banner. Europe is full of noisy denunciation of private property as necessarily being exploitation. Industrial labor, even in non-revolutionary countries, has put considerable reliance upon some degree of communism. Extremists are loud in asserting that production can be maintained by the impulse of altruism alone, instead of self-interest.

Too often they are embracing criminal support and criminal methods to enforce their ideals of human betterment. Every country is engaged in political experimentation with varying degrees of these hypotheses, and thus far every trial has reduced production.

The Western Hemisphere with its more equitable division of property, its wider equality of opportunity, still believes that productivity rests on the stimulus from all the immutable human qualities of selfishness, self-interests, altruism, intelligence and education. It still believes that the remedy of economic wrong lies not in tampering with the delicate and highly developed organization of production and distribution, but in a better division of the profits arising from them. It still believes in the constitutional solution of these problems by the will of the majority, while Europe is drifting toward the domination of extremist minorities. The Western Hemisphere is still producing a surplus over its own needs.

The first and cardinal effort of European statesmanship must be to secure the materials and tools to labor, and to see that its men return to work. It must also secure a recognition of the fact that whatever the economic theory or political cry be, it must call for the maximum individual effort, for there is no margin of surplus productivity in Europe to risk in revolutionary experimentation. *No economic policy that does not secure the maximum production will bring food to those stomachs or fuel to those hearths. There is no use of tears over rising prices! They are, to a great degree, a visualization of insufficient production.*

NEED FOR CONSERVATION IN CONSUMPTION

During the period of reconstruction and recovery from reduced productivity, the conservation in the consumption of non-essential commodities is more critical than at any time during the war. The relaxation of restriction on imports and on consumption of articles of this character since the armistice is disheartening. It finds its indication in the consumption of beverages and articles de luxe in many countries, increased even above a prewar normal. Never has there been such a necessity for the curtailment of luxury as exists today.

INFLATION OF CURRENCY

The universal practice in all the countries at war of raising funds by inflation of currency is now bringing home its burden of trouble. In extreme cases the most resolute action must be taken, and at once. In other countries having a lesser degree of inflation, such currency must be reduced and included in the funded debt or, as an alternative, the costs of wages, living and international exchange must be expected to adjust themselves to this depression. The outcry against the high cost of living, the constant increase of wages and the fall in exchange that is going on are in a considerable degree due to this inevitable readjustment.

EFFECT OF PRICE CONTROL ON PRODUCTION

The stimulation of production lies in the path of avoidance of all limitations upon the reward to the actual producer. In other words, attempts to control prices (otherwise than in the sense of control of vicious speculation) are the negation of stimulation to production, and can only result in further curtailment of the total of commodities available for the total number of

human beings to be fed, clothed and housed. There still exist in Europe great bureaucracies, created from the necessity of control of prices and distribution by the conditions of the war, which are loath to recognize that, with world markets open, no such acute situation exists and that their continued existence is not essential except in the control of speculation.

The argument so much advanced, that world shortage may develop and that this justifies continued control of distribution and prices is based upon the fallacious assumption that even if the world markets are freed of restraint that there is a shortage today in many commodities so profound as to endanger health and life. From any present evidence, thanks to the high production outside of Europe, no shortage exists that will not find its quick remedy in diminished consumption or substitution of other commodities, through minor alteration and price. All attempts at international control of price, with a view to benefiting the population in Europe at the cost of the producer elsewhere, will inevitably produce retrogression in production in other parts of the world, the impact of which will be felt most in Europe. A decrease of 20 per cent of Western Hemisphere wheat would not starve the West; it would starve Europe. It must never be overlooked that control of prices and distribution cannot stop with a few prime commodities but, once started, its repercussions drive into a succeeding chain of commodities and that on the downward road of price control, there can be no stoppage until all commodities have been placed under restriction, with inevitable stifling of the total production. It is also often overlooked by the advocates of price control that, whereas the high level of production was maintained during the war even under a restraint of price, this high production was obtained by the most vivid appeal to patriotic impulse on both sides of the front. This stimulus to production and distribution no longer obtains and the world must go back to the prime motive, which is the reward to the individual producer and distributor.

That body of advocates who have deduced from war phenomena that production and distribution can be increased and maintained by appealing to altruism as the equivalent of patriotism or self-interest should observe the phenomena of Russia where the greatest food exporting country is today starving. It must be evident, also, that the production cannot increase if political incompetence continues in blockades, embargoes, censorship, mobilization, large armies, navies and war.

PUBLIC UTILITIES

There are certain foundations of industry in Europe that, no matter what the national or personal ownership or control may be, they yet partake of the nature of the public utilities in which other nations have a moral right. For instance, the discriminatory control of ships, railways, waterways, coal and iron in such a manner as to prevent the resumption of production by other states will inevitably debar economic recuperation and lead to local disputes and economic chaos with their ultimate infection abroad, to say nothing of the decrease in productivity. These abuses are already too evident.

DUTY OF THE WESTERN HEMISPHERE

The question of assistance from the Western Hemisphere during a certain

temporary period, and the devotion of its limited surplus productivity to Europe, is a matter of importance and one that requires statesmanlike handling and vision. Although it is important, it is but a minor question compared to those stated above and it is in a great degree dependent upon the proper solution of the factors already touched upon. It is a service that America must approach in a high sense of human duty and sympathy. This service will, however, be best performed by the insistence that aid will not be forthcoming to any country that does not resolutely set in order its internal financial and political situations, that does not devote itself to the increase of productivity, that does not curtail consumption of luxuries and the expenditure upon armament and that does not cease hostilities and treat its neighbors fairly. If these conditions are complied with, it will be the duty of America and all the Western Hemisphere to put forth every possible effort to tide Europe over this period of temporary economic difficulty. Without the fulfillment of these conditions, the effort is hopeless.

With Europe turned toward peace, however, with her skill and labor alligned to overcome the terrible accumulation of difficulties the economic burden upon the West should not last over a year and can be carried and will be repaid. To effect these results the resources of Europe and also those of the Americas must be mobilized.

What Fuel Conservation Means to America

By Robert W. Woolley

Member of the Interstate Commerce Commission

AMERICA is confronted squarely with the problem of increasing her productivity per man power without, at least, increasing the cost of production per article. This in addition to any economies that may be effected through national obedience to the slogan "Produce more, save more and waste less." Such increased productivity per man power must come about through more efficient utilization of fuel, water power and machinery. I propose in this article to deal specifically with conservation of the two great articles of fuel—coal and petroleum—and more particularly with coal, for scientists agree that the days of petroleum as a commercial factor are numbered.

From *The Energy Resources of the United States: A Field for Reconstruction*, by Chester G. Gilbert and Joseph E. Pogue, volume 1, bulletin 102, of the Smithsonian Institution (United States National Museum), I quote as follows:

> While it is commonly known that our present utilization of fuel is wasteful, it is not generally appreciated how very serious and extensive this default has become, how many lines of progress the current practice in this field is blocking, and how distinctly and heavily the whole matter is contributing to the cost of living. While the color of sensationalism is to be deprecated, the assertion cannot be avoided that this country has within its reach the means for effecting a saving in the matter of its energy supply of well over a billion dollars a year. * * * In this one direction alone lies a gain sufficient to recoup much of the expense of the Great War.

Decline of Petroleum and Oil Supply

Referring to petroleum, Messrs. Gilbert and Pogue say:

> The liquidity of the crude product makes petroleum unique among mineral raw materials, contributing wide commercial availability through the ease with which the substance may be mined and handled; while the magnitude of the resource has given confidence for the extensive mechanical developments essential to its use. Hence the employment of petroleum is deeply rooted among the practices and needs of modern life, and any tendency toward disuse of its essential products, either through undue increase in price or from decline in production, will mark a turning point in material comfort and industrial advantage, the deferring of which becomes an object of universal concern. As the petroleum deposits of the United States have been drawn upon with extraordinary rapidity and the supplies have already suffered serious depletion, the matter of their approaching exhaustion assumes the light of immediate importance. The comforting assertion that such considerations may be safely left to future generations does not apply to petroleum.

In a recent widely published statement, E. Mackay Edgar, a noted English authority on oil, predicted that in ten years the British Empire will be selling 500,000,000 barrels of oil annually to the United States. Estimating the value of this oil at $1,000,000,000, he asserts it will be the means of restoring and maintaining sterling equilibrium. He said: "More oil has probably run to waste in the United States than has ever reached the refiners. Improvidence, carelessness, a blind gambling spirit, have marked all except the most recent phases of the industry. The great oil fields of the United States are nearing exhaustion, and it is not believed the new ones which are being proved will yield anything like the old prodigal production. America has recklessly, and in sixty

years, run through a legacy that, properly conserved, should have lasted her for at least a century and a half."

In other words, some fine morning not so far distant we are to awake to the realization that we have exhausted one of our principal sources of industrial greatness ninety years ahead of time, because as a nation we have felt it was unsound for the government to interfere in any degree with private enterprise—to curb the get-rich-quick promoter or speculator in the interest of all the people. As long ago as 1915, Secretary of the Interior Lane said in his annual report: "Petroleum is a priceless resource, for it can never be replaced. Trees can be grown again upon the soil from which they have been taken. But how can petroleum be produced? It has taken the ages for nature to distill it in her subterranean laboratory. We do not even know her process. We may find a substitute for it, but have not yet."

THE PROBLEM OF COAL CONSERVATION

True, we are equally reckless in the mining and handling of our coal. In their report just referred to, Messrs. Gilbert and Pogue say:

> In spite of ample supplies in the ground, coal inadequately meets its obligations because of the competitive manner in which it is mined, the unnecessary extent to which it is transported, and the improper way in which it is used. The first has caused tremendous waste, the results of which will be felt heavily in the near future; the second has caused a coal shortage during the war and promises a repetition at every coming period of sudden industrial expansion; the third has imposed an excessive burden of cost upon the public. To prevent waste, to circumvent shortage, and to lower cost, changes in our system of coal economics are necessary. These changes must be determined by coal itself—by the nature of its geographic distribution, geologic occurrence, mining technology, and chemical composition.

The problem may be largely solved by coking our high volatile bituminous coals.[1] A process by which this may be done is one of the by-products of the war. The results of the government test of this process, held under the joint auspices of the Bureau of Standards and the Bureau of Mines, were not deemed by the War Industries Board to be sufficiently convincing to warrant its adoption as a means of increasing the production of benzol and other coal products necessary in the manufacture of high explosives, but upon favorable reports made by such distinguished scientists as Dr. Alex. C. Humphreys, president of the Stevens Institute, Mr. Alex. H. Twombley, a noted coke engineer and Mr. Y. Iwamura, coke expert of the Japanese government, private capital has undertaken its exploitation on a large scale. Since the signing of the Armistice, I am informed that a 10,000,000 yen company has been formed at Tokio, by the Industrial Bank of Japan, acting for the government, and that the construction of ovens in Japan and her dependencies on the mainland of Asia, is about to begin.

The first battery of ovens of formidable size is now being erected at Granite City, Ill., ten miles out of St. Louis at an estimated cost of $15,000,000, and other batteries equally potential are planned at points in the heart of the soft coal regions—Jackson, Ohio, for instance—at such steel manufacturing points as Cleveland and at tidewater—for example, Bridgeport. It

[1] The beehive oven, which produces only coke, and the by-products ovens of German and Belgian design heretofore in use have only coked successfully the so-called, low-volatile, bituminous coals, which represent about 5 per cent of our coal supply and are to be found largely in the Connellsville, Pocahontas and Birmingham districts.

is only reasonable to suppose that in the not far distant future there will be other radical developments along this line. Now that the ice is broken and the possibilities are so glittering we we may expect science to "carry on" at a rapid pace. One writer, in his enthusiasm, speaks of the invention of the new by-product oven as being even more important than was the advent of the sewing machine or the cotton gin. Time may prove this to be true.

Waste in Production.—Referring to the production of coal, Messrs. Gilbert and Pogue say:

> It is wastefully used due to the lack of by-product recovery as an accepted economic practice. * * * The wastes in distribution may be reduced through the development of hydro-electricity and the coal-field generation of carbo-electric power, thus relieving coal of unnecessary duties, and by improvements in utilization, thus destroying the over-dependence upon high-grade coals which now necessitates undue haulage.
>
> The wastes in utilization may be done away with by establishing a method of separating the energy-producing constituents of coal from the commodity values and using the products to their common advantage. The most logical point of attack is the municipality, to which may be attached a public utility plant converting raw coal into smokeless fuel—artificial anthracite plus gas, or gas alone—and valuable by-products, ammonia, benzol, and tar. Such a plant would supply the fuel needs of the community and ship the surplus by-products to serve as raw material for a coal-products industry, developed thereby to proportions consistent with its importance to social progress. * * *
>
> By-product utilization will give cheaper fuel through the advantageous disposition of all the values contained. It will also end the smoke nuisance, relieve transportation, and cause the growth of a great coal-products industry with ultimate possibilities ranging beyond the grasp of the imagination.

I have quoted liberally from high scientific authority because when the railroads were first taken over by the government I was asked by the director general—each member of the Interstate Commerce Commission undertook some special investigation looking to the working out of various phases of the railroad problem—to conduct an inquiry into the question of fuel economy. The serious difficulty encountered was lack of uniformity as to quality of fuel consumed in locomotives. I concluded that if it were practicable the burning of powdered coke offered the solution. Accordingly, at my request President Wilson directed the test of the new by-product oven referred to above. The results so far as the proposed burning of powdered coke was concerned were not satisfactory, but that was really of minor importance when one considers the big result—that most of our high volatile coals are available for the manufacture of metallurgical and fuel coke and the extraction of valuable by-products.

RESULTS OF COKING OUR COAL SUPPLY

The use of this new process is fraught with "ultimate possibilities ranging beyond the grasp of the imagination." Some of the potential results are:

1. That the amount of coal in the country from which metallurgical coke can be made is increased from 5 per cent of our available coal supply to between 40 and 50 per cent of this supply, or a net increase of between 800 and 1,000 per cent; this makes available for the manufacture of pig iron and steel many low grade ores now regarded as having a negligible value only because of their remote location from recognized coking coal regions.

2. That all coal now used by railroads, except anthracite, which nature has coked, can be coked and from the sale of the by-products the cost of production, including the price of the

coal, largely defrayed, thus making the coke obtained practically net; that in due time all railroads may be advantageously electrified.

3. That the enormous banks of culm, accumulated through the many years of mining anthracite coal and long regarded as so much waste, may be mixed with the high volatile coals which intersperse the anthracite region and coked for fuel at the banks or at the mines, thus adding very materially to the fuel supply in the coal region closest to the great industrial centers of the eastern and northeastern parts of our country.

4. That by coking all bituminous coal, low and high volatile, the total amount of which mined in 1917 was in round numbers 612,000,000 tons and using the same figures for 1918 for purposes of calculation—value at the mines, at $3.50 per ton, $2,142,000,000—there would have been produced:

(a) 437,144,400 tons of coke having f. o. b. market value, using standard quotations of $6.00 per ton Connellsville, of $2,622,866,400.

(b) By-products having f. o. b. market value of $3,213,000,000.

(c) There would be a net saving in natural resources, allowing $4.89 per ton of coke for coal used and cost of manufacture, of $3,698,230,284 as compared with $109,742,799, the estimated net profit on 19,059,361 tons of coke made in by-product ovens in 1917 from 26,683,105 tons, the total amount of coal coked that year in by-product furnaces; in a word, last year we wasted $3,588,487,485 in natural resources through coal alone.

5. That the annual gasoline supply—fine oil recovered from coal is its like, but estimated to be 28 per cent superior—would be increased by 48,624,110 barrels; our total production of gasoline in 1917 was approximately 27,000,000 barrels. This means cheap fuel for tractors, trucks, automobiles and aeroplanes.

6. That the total gas supply of the country, on the basis of 6,000 feet per ton of coal, B. T. U. 560, would be increased to 3,672,000,000,000 cubic feet, having a basic or at-the-mine value of 10 cents per 1,000 cubic feet, or $367,200,000. This, of course, could be piped any necessary distance.

7. That through the recovery of light oils and of 12 gallons of tar per ton of coal made, or 7,344,000,000 gallons annually, having a present at-the-mine value of $367,200,000, we would become the greatest nation of dye, drug and chemical producers in the world.

8. That the 18,360,000,000 pounds of ammonia sulphate—30 pounds per ton of coal—produced annually would so augment our fertilizer supply that our soil could be made to increase enormously in productivity per acre and would afford an abundance of an important ingredient of high explosives.

9. That the production of toluol, from which trinitrotoluol (T. N. T.) is made, would be increased enormously.

10. That there would be attributable to coal smoke no further reduction in the creative producing power of our people, estimated in the report on smoke abatement by the Chicago Association of Commerce to be $1,000,000,000 annually, and that at least $100,000,000 in paint and repair work, due to the ravages of acids and the destructive effect of coal smoke, would be saved each year. Every town and city in the United States could be made clean and kept clean.

11. That through cheap power our productivity per person would be so considerably increased that we would be able to pay higher wages and with our great merchant marine, once we are back to normal conditions, we could market our manufactures at a profit

even in countries having the cheapest labor.

12. That our national wealth would be so augmented eventually through the greatly increased value of our high volatile coals, now used for high grade purposes, that the cost of our participation in the war would be almost, if not quite, absorbed.

13. That by making possible the transmission of all power, light and heat from the pit heads of the mines, at a cost below any yet suggested, the saving in domestic labor and in personal inconvenience would be incalculable and poverty abolished or at least reduced to a very low minimum; that thousands of individual industrial power plants, so costly to operate, would be scrapped or used for power distribution.

14. That through natural processes the three greatest of our monopolistic groups—oil, steel and power—would, with the government owning and operating the super-power stations, be effectively and permanently broken up. So, among other things, the prospective loss of gasoline produced from petroleum is to be more than offset by benzol. That answers Secretary Lane's question in large measure.

THE NEW COKE OVEN AND THE ELECTRIFICATION OF RAILROADS

In my report to the director general of railroads on possible fuel economies, submitted eleven months before the work of Messrs. Gilbert and Pogue, from which I have quoted so liberally, was issued, I featured the test of the new coke oven and called attention to the generally admitted fact that our railroads must in the near future be electrified. I quote in part as follows:

> The super-power station would entirely eliminate the transportation of coal for power purposes and would relieve the railroads of the congestion caused thereby. This is more than half of all the coal used in the country. The amount of fuel needed to generate a unit of power in the super-power station would be much less than that required by our present local plants. Besides, the freight cost would also be saved; this is more than half of the coal item in present costs of power generation, and coal is by far the largest single item of cost. There are still other items of cost for power which would be reduced in the super-power station.
>
> It is generally conceded that the electrification of steam railroads is imminent, but that the capital required for the generating plants and transmission lines is the chief present deterrent. The super-power plan would make the electrification of the steam railroads to a large extent possible at an early date, at least very soon after the conclusion of peace, when the copper needed for transmission lines is likely to be plentiful and cheap. It would increase traffic capacity from 25 to 50 per cent, would increase speed in transportation, and would practically eliminate railroad congestion, particularly during the winter season. It would entirely eliminate the transportation of coal for use by the railroads themselves.
>
> The advantages to be secured through the electrification of steam railroads are many:
>
> An electric locomotive will handle twice the load of a steam locomotive.
>
> It operates best in cold weather when a steam locomotive has its greatest troubles.
>
> On down grades what is known as regenerative braking returns from 25 to 50 per cent of the power used in climbing. This power is returned to the lines for the use of other locomotives climbing other grades. Regenerative braking is separate from air brakes, which are only used in emergency and in stopping a train. The trains run down any grade under perfect control, better in every way than by the use of grinding brakes, and at the same time electric current is being generated and returned back into trolley wires to assist in running other trains.
>
> An electric locomotive can be operated over a thousand-mile run in mountain work with only casual inspection. A steam locomotive for the same service requires close attention and makes it necessary to maintain round houses and yards at frequent intervals. Most of these can be eliminated by electrification.

Electrification is the cheapest and most practical means for producing an increase in traffic capacity. There are three ways for producing this increase: first, additional tracks; second, elimination or reduction of grades; third, electrification.

The entire cost of electrification, including the power stations and transmission lines, is less than the cost of either additional tracks or the elimination or reduction of grades. By electrification the traffic capacity can generally be increased 50 per cent over what it is with steam locomotives. The electric locomotives go over the steepest grades with only a comparatively slight reduction in speed.

The electrification of the railroads would better the load conditions on the super-power stations, and this would tend to still further reduce the cost of generating power.

Military experts agree that if there is ever another war it will be waged largely with gas. Scientists are saying that the nation developing the greatest dye industry, with its necessarily large complement of chemists, will be best prepared. This was the foundation upon which Germany built. In the limited space allotted me it is impossible to go even into meager details as to the possibilities of the dye industry. The point is that we are destined to lead the world as dye makers. I have not even touched upon the proper and logical development of our water power. That is a subject on which so much has been written that I have deemed it my duty to deal almost exclusively with what seemed to me to be the urgent and striking phases of the problem of conserving and efficiently utilizing our coal. If we are prudent, it is practically inexhaustible—and, thanks to the by-products process, is the source of the cheapest heat, light and power.

Food Thrift

By Raymond Pearl

Head of the Department of Biometry and Vital Statistics, The Johns Hopkins University; formerly Chief of the Statistical Division of the United States Food Administration

Food an Index to the Cost of Living

WHENEVER people become troubled by the high cost of living it is the cost of food which occupies the first and foremost place in their minds. Expenditures for clothing and for housing, the other chief items of cost in our merely physical struggle with the environment, come at relatively infrequent intervals as compared with those for victuals and drink, to use the old forth right phraseology. Every day one must buy his bread, and the sad fact of rising prices impresses itself with a vigor and depth which presently becomes soul-stirring. On the other hand, the common man buys his "new suit" so infrequently, and the purchase is furthermore such an adventure in itself, and one in which one wants to make a brave showing of being a regular man of the world, that a 50 or even 100 per cent advance in the price over what the last similar spree cost is met with substantial equanimity. During the war, prices of clothing in this country rose out of all proportion to the prices of food, but the public clamor about high prices virtually all centered around the latter.

There is real justification for this point of view also in the fact that in the maintenance of a family, food expenditure constitutes relatively a very large item. This has been most recently and thoroughly discussed by Professor William F. Ogburn[1] from whose paper the data of the following table[2] are taken as illustrative of the facts at the present time:

Table I

Cost of Actual Yearly Consumption of Food Yielding Approximately 3500 Calories per Man per Day (Data from Ogburn)

Locality	Average Expenditure for Food	Average Total Annual Expenditure for All Purposes	Equivalent Adult Males
New York	$678.73	$1,470.20	3.33
Providence	647.00	1,448.28	3.34
Boston	628.92	1,310.20	3.34
Chicago	613.10	1,514.00	3.30
San Francisco and Oakland	605.40	1,414.15	3.34
Seattle	588.76	1,587.30	3.35
Denver	569.23	1,357.13	3.35
St. Louis and East St. Louis	567.37	1,422.39	3.35
New Orleans (white)	564.76	1,368.37	3.34
Atlanta	526.00	1,342.07	3.37
Minneapolis and St. Paul	485.29	1,359.96	3.35
New Orleans (colored)	449.00	965.30	3.35

The significance of the column headed "Equivalent adult males" is to show that all the data were from families of approximately the same size so far as food needs are concerned.

Further data discussed by Ogburn show that at present price levels the

[1] Ogburn, William F. *A Study of Food Costs in Various Cities. Monthly Labor Review*, Vol. IX, pp. 303–327, August, 1919.

[2] *Loc. cit.*, p. 312.

expenditure for food constitutes, for constant size of family, from 28 to 38 per cent of incomes of $2,100 per year, and from 39 to 50 per cent of incomes of $900 a year, with intermediate percentages for intermediate incomes. It is no wonder that the problem of merely living has become an extremely acute one for many people in this country.

What is the way out? Any thoughtful student of economic forces in this country knows that it is not in the direction of a lowered price level, at least in the immediate future, particularly so far as food is concerned. The producer of food has economically come into his own during the war, and is not going to submit complacently to any marked lowering of the price level of *his* commodities at once. And in his power to curtail production he has, of course, an economic weapon of first magnitude. But in the practice of true thrift in regard to food expenditures the consuming public of this country has ready at its hand a means of coping with this problem which is also of the greatest significance and economic power. The remainder of this paper will be devoted to the task of demonstrating this proposition and endeavoring to show ways and means.

PER CAPITA FOOD CONSUMPTION

The first point to be considered in an analysis of the situation is to get reliable figures as to the normal per capita food consumption of the people of this country. I have recently made an extensive and thorough statistical investigation[3] of this subject, and from that study I wish to present certain results here. In the first place, it should be said that the basis of any adequate survey of food resources or consumption must be essentially physiological, rather than one of commodities or trade. Broadly speaking, the ultimate sources of food are the soil and the sun. The energy derived from the sun through the mechanism of the green plant builds up the inorganic chemical elements of the soil, air, and water into compounds which can be utilized as food by man, either directly or secondarily in the form of the products of animals which have been nourished on the primary foods of the plant world. Furthermore, food must be expressed, for proper statistical treatment, in the ultimate chemical or physiological nutrient components, protein, carbohydrate, and fat, with of course the energy value in calories.

Table II gives in chemical nutrients the food consumption of the United States on a total and per capita base, for a period of seven years between July 1, 1911 and June 30, 1918. Before entering on the detailed discussion of per capita consumption figures in Table II it is well to recall a fact which is liable to escape attention, unless special attention is called to it. This is the fact that the final figures in Table II, which are called "consumption figures," really include something more than consumption in a nutritional sense. They include the food actually eaten plus that which is wasted by loss in cooking, in garbage, etc. It is necessary to be entirely clear on this point.

[3] Cf., Pearl, R. *The Relative Contribution of the Staple Commodities to the National Food Consumption. Proc. Amer. Phil. Soc.*, Vol. LVIII, pp. 182–222, 1919. A detailed account of the research is in press in book form, under the title *The Nation's Food* (W. B. Saunders Co., Philadelphia) and will shortly appear. In the meantime, it is necessary to ask the reader to take on faith the statement that the utmost critical care was taken to ensure the greatest attainable degree of accuracy in the final figures.

In calculating the nutrients in the intermediate calculations use has been made of factors which allowed for *inedible* refuse, so that all of the inedible portion of the foods as produced or imported have already been deducted in the calculations up to this point. Furthermore, gross losses from storage, spoilage, transportation, etc., have been deducted. Even after all these deductions have been made, however, it is obvious that there is still a considerable amount of loss and wastage of strictly edible material, which might be saved and consumed under a theoretically ideal system of preparing food for the table plus a conscientious ingestion of every bit of edible material. Of course, as a matter of fact, neither of these theoretically ideal conditions at all prevail. There is a considerable loss of nutrient values in the process of cooking as ordinarily practiced. This loss is undoubtedly greater for fats than for any other of the nutrients. It is a troublesome and time-consuming process for the housewife to conserve and utilize all of the fat which gets melted and floats about in the water in which foods are cooked, or adheres to the utensils in which they are cooked. Nor, in the minds of most people, is there any necessity or desirability of saving this fat. In fact, a great many people in this country object very strongly to what they designate as "greasy cooking." Consequently, floating fat of soup stock is skimmed off and thrown away in the vast majority of instances. The result is that in calculations made in the way those of this study have been made, which include the total nutrient value in the edible portion of food materials, after deducting inedible waste and the losses which accrue up to the time the food reaches the consumer, there is bound to be an apparently high consumption of fats. The figures here presented are really statements of consumption plus edible waste and should be so regarded.

Another important factor is that of edible waste in garbage, that is to say, the uneaten portion of the prepared food which is edible and might be consumed, but is not for reasons of taste, over-estimation of ingestive capacity, etc.

Looking at the matter from the na-

TABLE II

Consumption per Adult Man

Year	Protein		Fat		Carbohydrate		Calories	
	Per Annum (Kilos)	Per Day (Grams)	Per Annum (Kilos)	Per Day (Grams)	Per Annum (Kilos)	Per Day (Grams)	Per Annum	Per Day
1911–12	44.70	122	62.12	170	195.48	536	1,563,450	4,283
1912–13	44.04	121	60.44	166	198.68	544	1,558,232	4,269
1913–14	45.08	124	60.22	165	209.25	573	1,591,621	4,361
1914–15	43.05	118	63.42	174	193.42	530	1,560,326	4,275
1915–16	44.48	122	61.22	168	200.48	549	1,574,621	4,314
1916–17	43.01	118	62.45	171	189.94	520	1,536,833	4,211
1917–18	43.14	118	62.47	171	195.34	535	1,559,661	4,273
Average, whole period	43.91	120	61.78	169	197.45	541	1,565,075	4,288
Average, 1911–12 to 1916–17	44.05	121	61.65	169	197.82	542	1,566,032	4,290

tional point of view, it seems probable that of the protein in human foods left in the country for consumption in the statistical sense, it is safe to say that 5 per cent is lost in edible wastage; of the fat left in the country for consumption as human food, it is believed that at least 25 per cent is lost through wastage. This figure seems large, but it probably under-estimates rather than over-estimates the fact. Of the carbohydrates, probably there is 20 per cent of edible wastage.

Applying the estimated percentage deductions for edible wastage stated above to the per capita average for the whole period we have the following results for ingested human food:

114 grams protein per man per day
127 grams fat per man per day
433 grams carbohydrate per man per day
3424 calories per man per day

These figures are probably very close to the fact as regards protein and carbohydrate. They are perhaps somewhat too high still as regards fat, because the edible wastage of this component is higher than the 25 per cent used. The intention, however, has been to use the most conservative figures in estimating waste.

The stability of food consumption, in physiological units, one year with another is one of the striking things brought out by Table II. People consume about the same total amount year in and year out, so far as we may judge both from common experience and from careful statistical study. This stability of consumption is shown graphically in Figure 1.

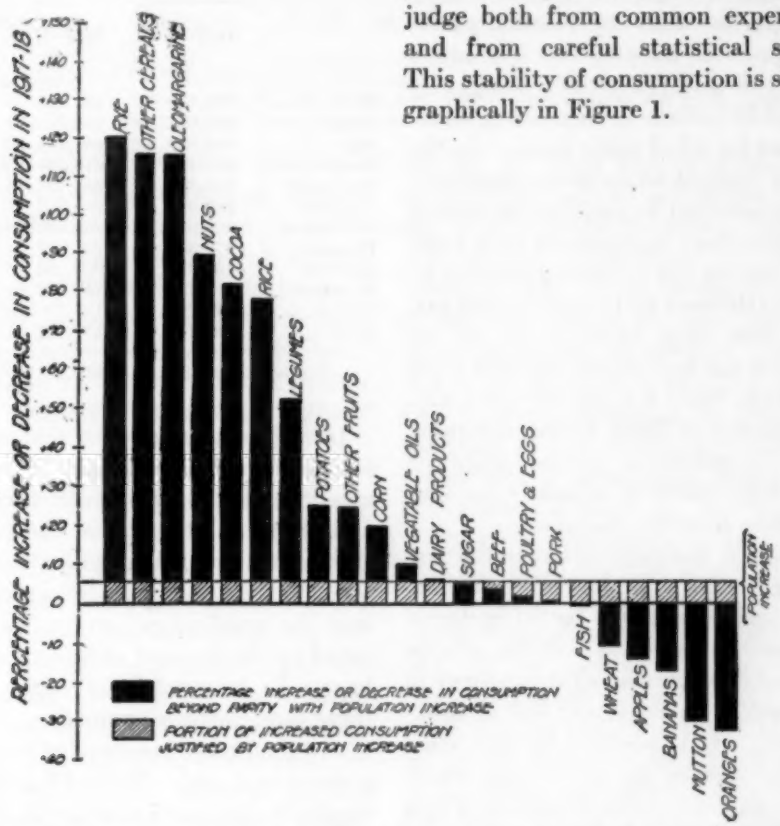


FIG. 1. DIAGRAM SHOWING THE ENERGY VALUE IN CALORIES OF THE GROSS CONSUMPTION OF HUMAN FOOD, PER ADULT MAN PER DAY

REDUCTION OF FOOD BILL BY THRIFT

It has been pointed out above that in the consumption calculations deductions were made for inedible refuse, for loss by spoilage, in transportation, storage, etc. Specifically these deductions included the following classes:

(a) Loss of commodity in storage
(b) Spoilage of commodity in storage
(c) Loss of commodity in transit
(d) Spoilage of commodity in transit
(e) Loss by vermin
(f) Amount fed to livestock
(g) Amount used for technical, non-food purposes, including the manufacture of alcoholic beverages
(h) Inedible refuse

From the viewpoint of thrift, rather than that of pure statistics, it must be remembered with the utmost clarity and precision, that the consuming public *pays for all these losses*. The prices of the commodities actually bought by the public include in themselves an allowance for all of these items. In the case of inedible refuse this is apparent. One knows that he pays for the rind of a watermelon, or the bone in a ham. He is not so apt to remember that he pays for the corn and wheat the rats eat.

So here, then, in items (a) to (g) above, is the first clearly marked place at which, from a national viewpoint, the practice of thrift would inevitably effect a reduction in the country's food bill, which in absolute amount would be literally enormous.

Again, it was pointed out in the preceding section that after all the deductions under items (a) to (h) inclusive had been made, there still was a large amount of *edible* waste thrown away in the form of garbage, and lost in cooking, etc. It is possible to give some definite figures on the effect which thrift can have on the reduction of this edible wastage. In the summer of 1917 Mr. Herbert Hoover, working through the organization he had built up, which was later to become the United States Food Administration, organized a nation-wide campaign to urge people to avoid waste in the preparation and use of food. In order to check up on the effectiveness of this campaign statistics[4] were collected from 96 cities monthly, giving the amount of the collection for each month in 1917–18, while the conservation campaign was on, and the corresponding month in 1916–17, before any conservation was practiced. The summarized totals are exhibited in Table III.

TABLE III

Total Tons of Garbage Collected in 96 Cities, by Months, May 1916 to April 1918

	Garbage Collected (Tons)		
	1917–18	1916–17	Relative
May	191,129.06	226,066.56	85
June	209,937.90	230,724.72	91
July	233,853.45	245,198.66	95
August	265,409.63	278,948.91	95
September	241,317.59	258,751.64	93
October	220,943.29	234,148.73	94
November	190,012.89	209,090.07	91
December	170,391.67	200,067.75	85
January	156,711.35	200,096.45	78
February	148,785.15	167,391.84	89
March	177,392.25	181,306.00	98
April	183,119.69	177,342.50	103
Totals	2,388,931.92	2,609,133.83	92

It will be seen at once that a substantial reduction in amount of garbage was effected simply by voluntary care and thrift on the part of the people. But even more remarkable than this quantitative saving, great as it was, was the qualitative saving, as indicated by the amount of fat in the garbage. In a number of large cities there are garbage reduction plants, where the grease is extracted from the garbage and sold. Table IV gives the results in this particular for 12 cities.

[4] Pearl, R. *Statistics of Garbage Collection and Garbage Grease Recovery in American Cities. Jour. Ind. Eng. Chem.*, Vol. 10, p. 927, 1918.

TABLE IV

Tons of Garbage Grease Recovered in 12 Cities for the Two Years, May 1917 to April 1918 and May 1916 to April 1917

City	Population	Tons of Garbage		Tons of Grease Recovered			Percentage of Grease		
		May 1917–Apr. 1918	May 1916–Apr. 1917	May 1917–Apr. 1918	May 1916–Apr. 1917	Relative Figure	May 1917–Apr. 1918	May 1916–Apr. 1917	Relative Figure [b]
Boston, Mass.	781,628[a]	46,335	52,650	1,401	2,140	65	3.02	4.06	74
Buffalo, N. Y.	468,558	15,382	21,817	314	494	63	2.03	2.26	90
Chicago, Ill.	2,497,722	93,235	124,496	1,656	2,869	58	1.77	2.30	77
Cleveland, Ohio	674,073	55,466	59,708	1,415	1,821	78	2.55	3.05	84
Columbus, Ohio	220,000[a]	17,295	20,393	354	639	55	2.04	3.13	65
Dayton, Ohio	155,000[a]	15,677	16,621	250	355	70	1.59	2.13	75
Indianapolis, Ind.	271,758	19,929	23,267	454	793	57	2.27	3.40	67
New Bedford, Mass.	118,158	8,774	10,162	199	270	74	2.26	2.65	85
Pittsburgh, Pa.	579,090	72,612	73,758	1,554	2,117	73	2.14	2.87	75
Philadelphia, Pa.	1,709,518	114,160	101,678	1,178	1,161	101	1.03	1.14	90
Schenectady, N. Y.	105,000	4,111	4,419	84	91	93	2.04	2.04	100
Wilmington, Del.	94,265	18,986	14,187	49	92	53	0.25	0.65	38
Totals	7,684,771	481,962	523,156	8,906	12,843	70	1.85	2.45	76

[a] Population, 1918. [b] Relative figure expressing the monthly collection for 1917–18 as a percentage of that of the same month of 1916–17; that is, relative figures under 100 mean smaller collections and figures over 100 mean larger collections.

Tables III and IV make plain in a concrete way what thrift can do on a large scale. A reduction of about 10 per cent in the gross tonnage of garbage, and of 30 per cent in the tonnage of fat recovered can only have been accomplished by a real and widespread saving and utilization of food materials which ordinarily go into the garbage can.

GENERAL STABILITY OF FOOD CONSUMPTION

Table II and Figure 1 indicate how difficult, not to say impossible, it would be to lower by any substantial amount the gross total food intake of a nation's population, so long as there is an abundance available. The experience of every country in the war shows that despite regulations, however drastic, and propaganda for voluntary reduction of the intake, people will eat just about the same total amount, *if they can get it.* They *can* be induced to stop wasting, and to save edible material which would otherwise go into the garbage can. Also, if there is an actual shortage of all foods, as was the case in Germany during the war, the total calory intake will be perforce reduced. But in the presence of plenty all experience goes to show that the food consumption of any nation, per capita of population, is exceedingly stable over long periods of time.

From the standpoint of true thrift it is desirable that such stability of consumption should obtain. The human body is a machine. Food is its fuel. If the machine is to maintain a given output of energy it must consume a given proper amount of fuel. To try to make the machine perform on a reduced fuel consumption, below the level which human experience through centuries has shown to be the optimum for efficient performance,

would be the height of folly, so long as adequate supplies are available. The human machine is so delicately organized that there is every reason to believe that if the nation's total calory intake were to be reduced by so small an amount as 10, or even 5, per cent over a period of months the results would be promptly apparent in increased mortality rates, diminished output of industry, and greatly increased morbidity.

The points which were stressed in Mr. Hoover's Food Administration conservation campaign seem to point the way to true and sound food thrift more wisely and justly than has ever been done before. These points were essentially:

1. *General conservation*, by the elimination of waste of edible materials wherever and however possible. The effectiveness of this has been demonstrated by the garbage figures, to take but a single instance. Many others might be given.

2. *Special conservation*, by substitution of one food material for another which it was desired to save for essentially military purposes. This was the method taken to conserve a short wheat supply.

The effectiveness of this special conservation is well shown in Figure 2.

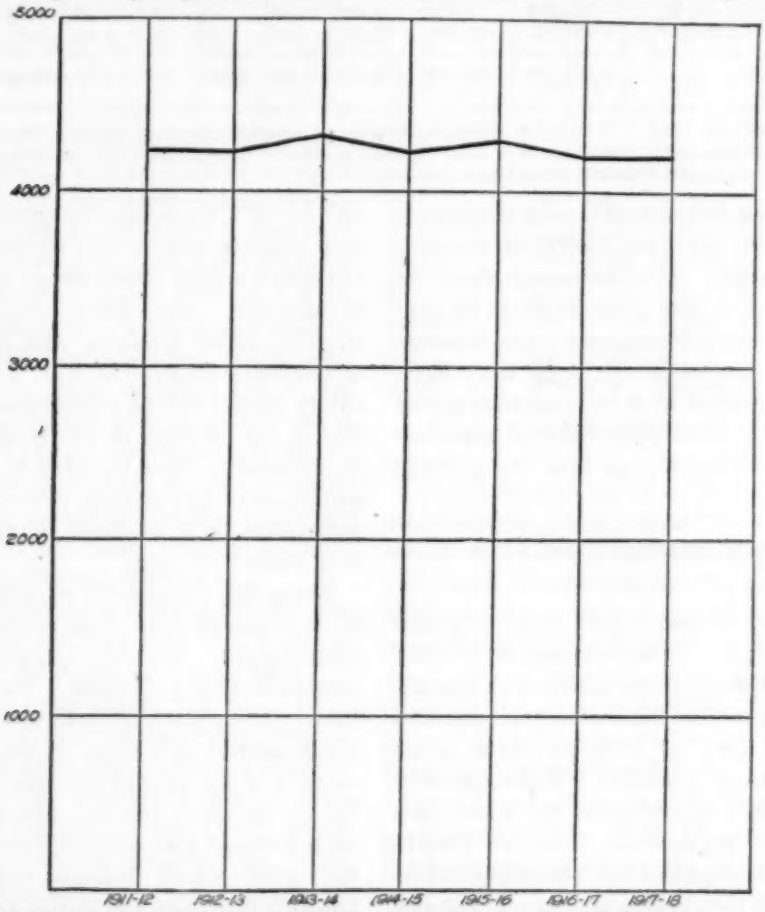


FIG. 2. SHOWING THE PERCENTAGE INCREASE OR DECREASE IN CONSUMPTION IN 1917–18 AS COMPARED WITH THE ANNUAL AVERAGE OF THE SIX YEARS PRECEDING. FOR EXPLANATION SEE TEXT

In this diagram the total length of the bars from the 0 line shows the total percentage increase or decrease in consumption in 1917–18 as compared with the preceding six years. The cross-hatched portion of each bar shows the percentage increase in population, and therefore the part of the increased consumption to be expected as a result of population increase. Where the black bar is below the top of the cross-hatched population bar it means a conservation. Thus the true conservation on wheat amounted to $10.80+5.73=16.53$ per cent of the normal average consumption.

It will be noted at once that the commodities showing great increases in consumption in 1917–18 over the preceding years are, for the most part, those which the Food Administration urged to be substituted for articles of which the supply was less abundant, and for which the needs of the Allies were greater. Thus, rye, which constituted the most popular of the substitutes for wheat in the public mind, shows the greatest increased consumption in 1917–18. Next to it stands the "Other cereals" of our classification, including barley and buckwheat. Nuts, rice and the vegetables generally show increases beyond the population increase, showing that the people very generally followed the suggestions of the Food Administration to consume more of these products and save wheat. The articles on which the Food Administration most strongly urged conservation—namely, wheat, beef, mutton, pork, and the sugars—all show either a consumption actually below the normal average, or else a very slight absolute increase well below the population percentage increase. In either case a real and substantial conservation is, of course, shown. The decrease in consumption of the most popular fruits, oranges, apples, and bananas is largely if not entirely explained by high prices for these products.

The health and efficiency of the American people did not suffer in the slightest degree from these food substitutions. There is no reason why the same method cannot be voluntarily applied by the people in peace as well as in war, and for economic as well as military motives. During the past summer I have had the privilege of visiting and talking over the economic situation with a considerable number of the largest manufacturers of all kinds of food products, from the Atlantic to the Pacific Coast. The outstanding general result of this experience, to which the supporting testimony was virtually unanimous, was that the demand for the highest grade of fancy products, put up in the most expensive way in the most costly packages, was greater than could be supplied; while on the other hand, standard grades of which the food value was just as great, but the price lower, were difficult to dispose of. And yet during this very period there was great public clamor, coupled with activity about equally furious and futile on the part of our legislators, regarding the high cost of living in general and of food in particular. It costs a manufacturer a definite and substantial excess amount to produce a highly fancy food product. But the product contains no more protein, or fat, or carbohydrate, or calories than does a standard article (sometimes indeed less), nor is the fancy grade any more sanitary, broadly speaking. Yet people are loath to buy any food except what they call

TABLE V

Cost of Food in Relation to Its Energy Value

Order	Commodity	Average Retail Price per Lb. (Cents)	Relative Cost of 100 Calories, Bread Being Taken as 100		
			Oct. 1 1918	Sept. 1 1918	Aug. 1 1918
1	Cornmeal	7.05	52	51	51
2	Flour, graham	7.2	53	53	51
3	" wheat	7.3	54	54	53
4	" rye	7.2	54	56	54
5	Oats, rolled	8.4	55	57	52
6	Flour, barley	7.9	57	59	59
7	" corn	8.1	59	57	56
8	Hominy grits	9.1	67	67	65
9	Sugar, granulated	10.4	68	62	61
10	Sirup, corn	8.6	71	72	68
11	Flour, buckwheat	11.2	82	80	73
12	" rice	13.4	95	91	89
13	Barley, pearled	13.2	97	96	85
14	Bread	9.9	100	100	100
15	Lard, pure leaf	34.9	102	97	95
16	Rice, fancy head	13.7	103	100	96
17	Oil, cottonseed	34.7	104	114	106
18	Macaroni (bulk)	15.0	110	109	104
19	Oil, corn	37.6	113	123	103
20	Beans, navy	16.9	128	113	117
21	Oleomargarine	37.1	130	124	122
22	Raisins, seeded	15.6	133	130	128
23	Crackers, oatmeal	21.6	134	142	141
24	" graham	21.7	136	144	139
25	Potatoes, white	3.73	148	151	149
26	Cocoa (bulk)	33.7	179	161	166
27	Prunes, medium	17.5	180	175	169
28	Peaches, evaporated	18.9	188	183	167
29	Apples, "	20.8	188	192	180
30	Potatoes, sweet	7.1	188	225	236
31	Cheese, American Cheddar	37.5	215	203	195
32	Butter, creamery	63.5	217	184	176
33	Milk	6.85	264	248	245
34	Honey, comb	33.7	272	243	240
35	Onions	5.2	310	340	336
36	Ham, sliced	51.4	323	306	293
37	Mackerel, salt	27.3	326	305	309
38	Oil, Italian olive	110.0	328	324	295
39	Corn, canned	14.88	403	388	375
40	Pork chops	43.5	422	389	366
41	Leg of mutton	35.3	484	487	473
42	Salmon, Red Alaska canned	30.8	557	548	537
43	Salmon, fresh	32.4	604	611	546
44	Beef, round steak	38.1	699	692	681
45	Peas, canned	15.04	718	699	675
46	Eggs, fresh gathered	36.2	720	635	586
47	Halibut steak	32.3	856	864	782
48	Peaches, canned	15.9	903	903	793
49	Cod, salt	27.6	915	955	839
50	White fish	26.2	977	962	837
51	Tomatoes, canned	14.0	1,671	1,623	1,582
52	Beans, string, canned	15.7	2,082	2,015	1,705

the "best." A point which wants emphasizing is that thrift, like Boston, is a state of mind.

FOOD IN RELATION TO ENERGY VALUE

To give point and direction to thoughts similar to those expressed in the preceding section it was the writer's custom during his connection with the Food Administration to issue monthly a typewritten bulletin, to members of the organization for publicity use, having the title "Cost of Food in Relation to Its Energy Value." A sample table from one of these bulletins (that for October 1, 1918) is reproduced here as Table V. The table gives the relative cost of 100 calories obtainable from various foods at the average retail price prevailing in the United States on the dates named.

Such tables as this can be prepared very simply and easily by anyone with an elementary grasp of arithmetic. They should form one of the essential bases and guides of food thrift. Canned string beans no doubt have their place in the dietary of the rich, but it is difficult to see what place they have in the practice of food thrift.

PREREQUISITES TO PRACTICE OF THRIFT

By way of summary it may be said that in the opinion of the writer preaching the virtues of thrift is much like any other sort of preaching, a sadly thankless and ineffective task. What I have tried to do in this paper, in lieu of exhortation, is to present some basic facts about the physiology and economics of food, and to point out how any people thriftily minded may reduce their national food bill much below what ours is and suffer no evil consequences, but only good. The way lies along two lines, which are: First, reduction of avoidable waste of food at every stage from the farmer's field to the consumer's stomach; and second, the substitution of cheap foods, physiologically just as nourishing, for dear foods. But first of all, and all the time, it is a prerequisite to the practice of thrift, that the people be thriftily minded.

The Garbage Pail, a National Thrift Barometer

By H. L. Baldensperger

Sometime Executive Officer, Salvage Division of United States Army and also Member of War Prison Labor and National Waste Reclamation Section, War Industries Board

THE city dump is no respecter of persons. It reveals the inefficiencies of our industrial and communal organizations. It serves as a measure of the efficacy of our thrift movements. Thrift was the war-time slogan; the government bent every energy to induce us to save. The influence of this campaign was registered in the city dump. A study of the municipal reports covering the years 1917–18 will show a remarkable decline in the amount of waste handled by the city agencies but these same reports reveal the lack of permanent influence of this campaign. The amount of garbage handled in our larger centers in November, 1918, increased from 10 to 25 per cent over the amount of material handled in the previous month. It was not necessary to consult the news dispatches to ascertain that hostilities had ceased,—the garbage pail revealed that fact.

Here is a measure of the effectiveness of our movements for organized thrift. We may theorize about savings, we may develop programs for increasing individual and social thrift but it is to the city dump that we must look to secure the data by which our program can be made effective.

Garbage Reclamation in the Army

One is tempted to say that garbage won the war. Not because it contains matter essential to the manufacture of munitions, not because it is the chief supply of glycerin upon which the success of any military program depends, but because it checked food waste in the Army and became a safeguard of the efficiency and morale of our men.

It is true that few Army officers recognized that fact; it is doubtful if many would agree even in the face of the evidence because the average official of the War Department like the average citizen looks upon garbage as a nuisance, as a loathsome thing which must be put out of sight and mind once and for all time.

Garbage in the early days of the war was more than a nuisance to the War Department; it was a bug-bear. Every system of disposal was open to severe criticism. Incineration was destructive of valuable by-products and fuel. The method of sale to contractors in bulk was inefficient. The government did not receive an adequate return for the waste, and valuable material with glycerin content was being disposed of for stock feeding purposes.

It remained for an officer of the British Army, assigned to our government to assist in our reclamation work, to develop the true function of garbage. Col. Sir Frank B. Beauchamp adapted the British system to our needs and through the initiative and foresight of Col. John S. Fair, Assistant to the Acting Quartermaster General, saw it put into successful operation in this country. Under this plan each unit of the Army conducting a mess was compelled to keep a sixfold classification of its table waste.

This material as segregated was collected daily by the salvage corps, weighed and the proper records covering the weight of each class was checked against the separate units.

The daily tally sheet was the index to the kitchen efficiency of the various units of the division. It became a danger signal in many instances because a high percentage of waste meant one of two things, over-feeding or poorly prepared food. Efficiency and morale were affected by either situation; valuable food was being consumed to no purpose. The salvage officer by consulting this tally chart was enabled to locate the danger points at once. A hurried but heated interview with the mess sergeant and a rapid transfer of kitchen personnel to the School for Bakers and Cooks was the usual means of dealing with the situation. Garbage became the terror of the inefficient,—the camp inspector worked unceasingly and untiringly.

This system increased the revenue derived from the sale of the waste material; it checked the loss of valuable by-products but its true value lay in the fact that it revealed the points of inefficiency. It indicated those centers where additional education and training were needed.

GARBAGE AND INSTITUTIONAL EFFICIENCY

Society needs some such measure to check the efficiency of its social institutions. It must utilize its garbage pail, its city dump and its institutions to determine if it has in reality adopted thrift, if it is utilizing its material and man power effectively. The success of this system in the Army lies in the fact that the men were under social control. There is a portion of our people equaling in number the forces called to the colors who are under the same system of control. Our institutional population is maintained under a somewhat similar system of centralized authority. Is it not time to look at our institutional garbage pails in order to check the efficiency of our institutional kitchens?

Our government put a similar system of check into operation at a federal institution. The War Prison Labor and National Waste Reclamation Section of the War Industries Board issued an outline of this system and had it adopted at a naval prison. Other institutions under the control of the federal government were to adopt this plan when the armistice suspended the operation of the War Industries Board. As a result of this suspension of activity the other federal institutions are pursuing the old policy of dealing with garbage as a nuisance and our state institutions are following a similar policy. H. C. Wright, in his *Fiscal Control of State Institutions*, reports but three as having such a system of checking the efficiency of the kitchen. It is time for our institutions to benefit by the experience of the War Department and through State Board of Charities or similar bodies to establish some such system of measurement, some method of utilizing their garbage as a measure of the efficiency of the management of the institution.

THE CITY DUMP

Our attitude is the same in regard to the other waste material we discard. We erect unsightly dumps as a monument to our inefficiency. We compile little or no data relative to the type or amount of material discarded by the community. We talk thrift while we bury in the dump arti-

cles with the potential value of millions. The war temporarily checked this tendency. The amount of secondary metals reclaimed in 1916 was more than 130 per cent of the amount returned to industry in the previous year. The amount of the heavy metals conserved and re-utilized increased about 75 per cent in the same period. Bear in mind the condition of the garbage pail following armistice day and you can readily depict the condition in regard to the city dump. We are again swinging back to prewar conditions at our points for handling the waste of the community; we are again diverting needed labor to the extractive industries while we build ore dumps at the doors of our city.

THE WHITMAN PLAN

Our city dumps and our correctional institutions are the products of the type of thinking which attempts to solve a problem by ignoring it. We waste men and material because it requires time and effort to find the necessary solution. We lose our unsalvaged material, we waste our unadjusted man.

The Chicago House of Correction is an exception to this rule. John L. Whitman, sometime superintendent of that institution, inaugurated a system of employing the physically unfit man in handling the waste of the community which not only revealed the potential wealth which exists in the dump and in the waste man but also served as a basis of the government's war-time program for waste reclamation.

Under Whitman's plan of utilizing prison labor in handling the waste of the municipal departments, the inmates thus employed were enabled to make a return equal to four times their cost of maintenance an were enabled to contribute a sum equal to 50 per cent of the cost of maintaining the institution. The material after being properly handled was sold for a sum 900 per cent more than was received for a similar amount when it was sold unsorted. Pieces of copper wire which had been thrown aside by the electrical department netted more than $43,000, waste paper made a return of over $4,000 while old rags saved from the garbage made a return of approximately $4,000 and the platinum in the worn out electric light bulbs was found to be worth $9,000. These figures, representative of the returns secured for various items of waste, are compiled from the financial statement for the year 1916,—a representative prewar year in the waste trade.

ORGANIZED THRIFT IN THE ARMY

Whitman's system proved to be the solution of the two pressing problems which were facing the War Department in 1917. An establishment functioning with a machinery untested by war was proving unfit for the task. Waste was rampant. Such a situation was to be expected. A small staff working under archaic methods of handling material and with theories ill-adapted to the times was not only wasteful of material, it was also wasteful of man power. The rigid personnel system could not attempt to adjust the man who did not readily fit into the military machinery. He was either discharged as an "inept" or handled as a military misdemeanant. Either system meant the possible increase of institutional population, either civil or military and any addition to that class which is maintained in idleness meant a serious drain on the resources of this country.

This problem was referred to Mr. Hugh Frayne, General Organizer of the American Federation of Labor, who represented labor on the War Industries Board. Mr. Frayne was assisted by Mr. John J. Manning, also a member of the Federation and a deep student of the problems of prison employment, and also by the present writer. A plan was developed and submitted to the Board by Mr. Frayne. Whitman's plan was the basis of this program which called for the establishment of a central bureau in the War Department which was to have sole jurisdiction over worn material, this material to be repaired for reissue or prepared for the market by labor companies which were to be composed of men unfitted for military service or by general prisoners and prisoners of war.

This plan was approved by the War Industries Board and forwarded to the War Department for consideration. The plan was put into effect in the early part of 1918 but with one serious defect,—no provisions were made concerning labor and as a result the Conservation Division could not function either as a reclaimer of material or of men.

This defect was soon remedied. The Conservation Division was placed under the direct supervision of Col. John S. Fair who was largely responsible for the effective development of this feature of army administration, as well as the proper development of the remount and fuel and forage branches of the Quartermaster Corps. Col. Fair drafted and secured the passage of special regulations covering the reclamation activity of the Army and in these regulations he adopted the program of the War Prison Labor and National Waste Reclamation Section of the War Industries Board. He provided for salvage companies which were to be composed of men unfit for line duty. These companies comprised those men who theretofore had been discharged as "inept" or who had fallen afoul of the military courts and had become military misdemeanants. Col. Fair also arranged for the utilization of prisoners of war, conscientious objectors and general prisoners in certain features of the salvage work. Thus, at one stroke was launched the greatest movement for organized thrift in the history of our army, a movement which decreased criminality, abolished idleness as a punishment for military offenses and made a monetary saving estimated at $65,000,000.

UTILIZATION OF THE UNADJUSTED MAN

Broad powers were granted the Salvage Corps in the development of its work. It was authorized to develop agricultural, mineral and forest lands owned, purchased, or leased for the army. Under this provision Col. Fair in coöperation with the group of the War Industries Board responsible for the inception of this program developed a plan looking to the utilization of the socially unfit from the military standpoint. This plan would, doubtless, have blazed a new trail in the field of penalogy and would have assisted materially in developing a national waste conservation movement so essential to any scheme for organized thrift, but the armistice was signed before the program in its entirety could be put into effect.

The movement for the establishment of the camp gardens is a part of this program. Here again the basis of the program was the desire to utilize

the waste man. The opportunity to secure added food supplies from regions adjacent to the camp and the cultivation of idle lands were factors which received consideration but the primary reason was a desire to open additional avenues of useful employment to the unadjusted man under the control of the military group. Those of us who were instrumental in developing this program and putting it into effect did not consider the financial return, large though it was, as an index of the real function and success of this service. The number of men returned to the line, the amount of Liberty Bonds purchased by prisoners of war employed at a small wage on these camp farms served as our measure of the effectiveness of these newer ideas of thrift.

The War Prison Labor and National Waste Reclamation Section was instrumental in developing other systems of waste conservation which included the use of the unadjusted group. It is to this Board that the securing of the executive order permitting the use of state prisoners on federal work is to be attributed. Under this authority a large shoe repair shop operated under the supervision of the Salvage Corps was installed in the New Jersey State Prison at Trenton, N. J. Here with unskilled and untrained men the army developed its largest quasi-governmental shop which prepared for re-issue a thousand pairs of worn shoes daily.

This same section was responsible for the movement for the establishment of the Whitman plan in other centers and a number of communities organized their salvage work along the lines developed by this group. Unfortunately, the work of this section ceased with the disbanding of the War Industries Board and, although the Department of Commerce assumed charge of the function, the movement was but short lived. Congress was busily at work saving pennies and losing dollars and refused the necessary funds for the continuation of the movement which would certainly have assisted materially in the development of a national system of thrift. Despite the fact that this section had but a short time to develop its program an examination of its records will show that in at least three cases prisoners were utilized to marked advantage in handling the waste of the community.

DISPOSAL OF ARMY SUPPLIES AFTER ARMISTICE

This section of the War Industries Board made one final contribution on the eve of its disbanding which has had far-reaching effect. The signing of the armistice found the Salvage Corps with hundreds of thousands of articles on hand waiting repair. The army had no further need for renovated material. Under such conditions this material would be sold and utilized in the manufacture of other articles. The members of this section of the War Industries Board pointed out that the wearing value of these articles should be conserved in their present form and proposed that the army sell this material to the states to be repaired by the inmates of the state institutions and utilized in maintenance work. The army accepted this plan and the machinery of administration was set up but in the legal tangles which ensued the opportunity for the development of this idea was lost. However, as a result, of the movement to put it into effect a ruling was secured which permitted the sale

of material to states and municipalities and upon that ruling the army developed its system of chain stores for disposal of army supplies.

MUNICIPAL WASTE PROBLEMS

There is a growing interest in the city dump. The experience of our government will, doubtless, have a marked effect in the future development of our municipal and industrial functions. We must realize how archaic and wasteful our methods are and what a social cost is entailed by their retention. Two groups have recently become interested in the question of the disposal of the city waste. Both groups attribute inefficiency and cost to the same factor; the same conclusion was reached in widely different fields of research and interest. Our present system of communal waste collection has developed a character who is the logical development of our present lack of policy in dealing with the waste of the community. The collector or junk man is looked upon as a social liability by the social worker and the city engineer.

The Junk Man

The cost of collecting the rubbish of the city is increased by the junk man. This fact is revealed by the recent research in this field. The city collection is slowed up by the fact that the city collector picks the valuable waste out of the litter. This means not only a loss of revenue but a greater loss in retardation of the collective service. Scavengers who pick the rubbish cans prior to the rounds of the collector increase the cost of collection by scattering the material. The city engineer has seen the problem but has not as yet offered a solution.

Juvenile Delinquency

The social worker has also indicted the junk man. He is charged with being the chief contributory factor in male juvenile delinquency. A superintendent of a correctional institution for juveniles, basing his contention on the record of three hundred commitments, claims that the junk business is primarily responsible for 90 per cent of the delinquencies. The Chicago Juvenile Protective Association made a thorough investigation of this question and reached the same conclusion. They found, in Chicago, where the system of utilizing prisoners in waste reclamation was first inaugurated, that the itinerant junk man was the chief cause for commitment to institutions for juvenile delinquents and often responsible for the first step in criminality which ended in the Chicago House of Correction, the center of the new system for dealing with city waste. This group proposed breaking this vicious circle by municipalization of the junk business and elimination by ordinance of the junk collector. It was argued that this would give added revenue to the city and eliminate a large amount of juvenile delinquency.

Waste by the Housewife

Again, the data covering the flow of material to the city dump can be used to show wherein this movement for municipalization would have little or no influence as an educational movement. As the conditions now stand the junk collector performs an economic service. He secures as large an amount of waste material as possible. To municipalize might mean a decrease in the amount conserved. A study of the waste handled by the

City of Rochester shows that the housewife is the real contributing factor in our present system of waste by the community. Due to her failure to make the proper segregation valuable waste commodities are being lost in the ash dump. It was estimated that with proper segregation, the amount of the waste material conserved at the city dump would be increased at least 30 per cent. Municipalization would not check this loss of valuable waste in the ash dump.

Sentiment, not law, will be the only effective measure for checking this present system of inefficiency. Patriotism became the driving force for conservation during the war. How effective this force was in comparison with the previous means for stimulating conservation in pre-war days can best be measured by a reference to the increasing material handled during the war and the decline in the amount of material sent to the city dumps. We need a similar force in the days of peace if we are to increase the amount of waste material which will be conserved and sent back into the channels of consumption. The answer to this problem, doubtless, lies in a system of coöperative waste saving such as that which was launched by the government and put into operation in Akron, Ohio.

COÖPERATIVE WASTE SAVING

The program for an incorporated community waste saving scheme was fostered by the War Prison Labor and National Waste Reclamation Section and was put into successful operation by George W. Sherman, Salvage Manager of the B. F. Goodrich Co., Akron, Ohio.

This system will not only check waste in the home, it will assist conservation in industry. By this system a factory or store with small volume of waste can have it handled at the same cost per pound and will receive the same revenue per pound as an industry with a large turn-over. By this system it would be possible to check the distribution of material, which, heretofore, has been impossible due to the excessive cost of handling small accumulations of waste material, and will inculcate ideas of thrift by demonstrating the added value which accrues with increased accumulation and proper assorting of the waste material.

Space does not permit a discussion of the details of this system. The Department of Commerce has investigated this movement and reported upon its successful operation in a publication known as the *Akron Industrial Salvage Company,—A Community Incorporated Waste Saving Experiment.* In it will be found interesting data covering the cost of operation, the financial return and the future developments of the work.

But one feature should be mentioned here. That is the system of collecting the waste paper from the public schools and applying the net proceeds for playground work; and the collection of the waste of the home for furthering the welfare work of the community. In this program, doubtless, lies the anwer to the problem of finding a news force to intensify savings, a new community driving power similar to patriotism to force the individual to save material for the benefit of others.

The Board of Managers of the Chicago House of Correction, in the annual report for the year 1918, discussed the salvage work of the institution and stated that the present returns could not be continued indefinitely due to the

fact that in the early stages of the movement the institution uncovered the accumulation of years in the various city departments, that they could not hope to secure the same amount each year due to the fact that the separate departments were certain to sell the material direct to the dealer.

In this naïve statement is revealed the administrative attitude towards waste material and the proper development of the functions and machinery for securing an adequate return from its disposal. Experience had given them a measure which would have enabled them to force through a program for centalized control over the waste of the city, a system which has been successfully adopted by the army salvage movement.

This attitude of mind on the part of the officials shows the weakness of municipalization and the strength of the Akron plan. A coöperative company working on the lines of a commercial concern will be enabled to secure such convincing data as to the waste of the municipal departments and the homes that it will be enabled not only to increase the revenue from the waste but also to decrease the amount of waste in the community.

Thrift is paramount but habits of thrift cannot be inculcated by precept. Modern society has left little for the initiative of the individual. Group action is the basis of our modern communal life. Our thrift movements, heretofore, have depended upon individual initiative. In order to have our thrift movement conform with modern social conditions it is necessary to organize for communal action. We must throw the emphasis on spending rather than on saving and develop methods of measuring the effectiveness of our system of expenditures so that we can secure the maximum return for the dollar spent by the community. We must develop some system of measurement similar to the system utilized by the army to force efficiency upon the group. We need to utilize our garbage pails as barometers of the national thrift movement.

The Function of Salvage in the Education of Industrial Workers

By George W. Sherman

President, Akron Industrial Salvage Co. Formerly, Manager of Salvage Department of The B. F. Goodrich Rubber Co.

Possibilities of Waste Reclamation

MODERN industrial salvage methods have been developed by a pressing need to dispose of large volumes of material in the best and most economical method. The education of the industrial worker was no factor in the inception of the plans and I may say, without fear of contradiction, that it was no factor in their development and is today no deliberate factor in most of the plants that have developed this subject. The problem of finding uses for a constantly changing group of materials flowing overwhelmingly down upon a Salvage Department, generally crowded as to space and hampered by lack of equipment and labor, is as fascinating and engrossing as it is overwhelming, and the fact that these activities have served a purpose in the education of workers has been purely incidental and fortunate rather than deliberate. The later phases of this development whereby great values are produced from most unpromising sources is strictly a cold-blooded business proposition, but it has nevertheless fostered the educational feature which has been of more value than any other incidental result.

There is no line of activity calling for more keen or brilliant imagination of a practical type than the making of something from nothing; the multiplying of values by sorting, grading, cleaning, or by ingenious mechanical or chemical contrivances and simple manufacturing operations. The men and women who live their industrial lives close to these problems sense this fact and develop remarkable ability and skill in conceiving and carrying out manipulations, in planning new uses for materials, or in reducing costs or improving quality. The incentive for this type of service consists in the opportunity to apply it. In most staple manufacturing it is very difficult to get changes made, because of the large investment in equipment and because of the inertia of an established process. In salvage work nothing is fixed or permanent and one is always privileged to test out in a crude way any dream he may have for the improvement of anything.

Popular Attitude Toward Waste

But I am forgetting that many of my readers do not know of modern industrial salvage methods, and that the sole point of view of most of them may be outlined as follows:

Get rid of it!
Throw it away!
Send it to the dump!
Burn it up!
Chuck it in the garbage or ash can!
OR
Sell it to the "junker man," if he'll buy!
Phone the Salvation Army to send for it, if they want it!
Take it to the United Charities, if it fits their needs!
Give it to the first Rummage Sale that asks for it!
Pass it on to your own pet charity!
Have a sale at your home!

Pay a teamster to clean up and haul it away!
Or, dispose of it in any one of a hundred other ways that will immediately occur to you!

Then you rest content that a nuisance has been eliminated, that your house, or office, or store, or factory, or school is spick and span and that the way is clear for real business to proceed in the home, the office, the store, the factory or the school. Let me change the pronoun from *you* to *we*. For I, myself, do all these things at times, even though it is my business to do somewhat differently and even though I know that the waste problem can be better solved than it is. Again, let us change the pronoun from *you* to *we* because I am seeking your aid and coöperation in finding and applying the program which will advance this problem toward a better solution.

WASTE RECLAMATION AN ESSENTIAL ACTIVITY

There seems to be a difference of opinion as to the Biblical text that promises the eternal presence of "the poor," but no one will disagree with the maxim that waste is an essential of all physical activities. I use the term "waste" here in the broad sense, covering unavoidable trimmings, scraps, garbage, ashes, paper, junk, etc., as well as similar items produced by carelessness. This acknowledgment establishes an essential feature for the consideration of the subject as an important, essential activity, because it is permanent to the extent of always being present. Not only is this problem always present, and always will be present, but with all humility each new student in this line must admit it always has been present.

And in spite of the fact that each new student, each new recruit, each organization conducting a campaign, feels sure that their little effort to use the junk pile is a pioneer discovery, if not of the pile itself, at least of a general panacea for the solution of the waste problem, it is obvious that we are dealing with a problem as old as the universe, and although history has not devoted a great deal of space to the subject as a separate entity, reference to it is frequent, showing that much study has been expended through the ages in solving the problems of waste. Lazarus lived on the crumbs that fell from the rich man's table; Ruth gleaned the wheat left in the field by the harvesters; Dickens tells of the fortune made by the dustman in *Our Mutual Friend;* the close economies of the people of France, which have become traditional, involve countless solutions of the problems of waste; many of the fortunes of our own country were built on the business of the itinerant tin peddler who bartered his wares for old rags, metal, bottles, etc., and at the same time bartered the news of the countryside for other wares of the same class; the humble, diligent, often despised "junka-man" of the backyards and alleys of the city solves many of the specific phases of our problem; and the magnates of the waste trade, their business often growing from these same humble sources, have devoted their lives to the furthering of the same investigation. And who can tell the countless garments made over by the mothers of the world for another use or for the next smaller member of the family. And so it must be with due humility that we presume to do better or to do more or even to do differently in this line than the accumulated wisdom of all time has done.

EDUCATIONAL ASPECTS

We must know then: (1) What has

been done? (2) In what ways does past accomplishment fall short? (3) What can we suggest to overcome or to lessen these shortcomings?

What has been done? Specific problems have been solved, and often well solved, by the millions.

Specialists have concentrated keen minds, wide experience, limitless funds and comprehensive business organizations on the problem of making money on special items or groups of items, and incidentally have advanced the state of the art as always happens under such circumstances.

Municipalities, state and national governments have investigated, reported and in many cases acted on the reports of certain phases of waste. Government activities, however, except possibly in war emergency, have approached the problem mostly from a mere housecleaning standpoint.

Manufacturers have faced and solved countless problems of valueless tonnage and have produced a vast increase in value.

In what ways does past accomplishment fall short? (1) In the solving of specific problems only without a recognition that general basic principles apply to the whole subject and form a legitimate field for a general specialist.

(2) In the failure to solve, as a part of the general problem, the features which apparently do not pay and leaving the them as a housecleaning nuisance.

(3) In the failure of the present business specialist to recognize that his business lacks permanence due to his narrow field. His very success in increasing the number of uses for an item or in improving its value, gradually cut down the margin as this knowledge becomes more and more general.

If, therefore, he confines himself to too narrow a group, he will inevitably work himself out of his business. Also, in the constantly changing methods of manufacture, the identity, shape, color, chemical or physical characteristics of the waste changes frequently. The business built up on one item or type of waste may last for only a comparatively short time and then disappear with the disappearance of that item of waste.

(4) In the wrong psychological attitude toward the whole subject. Waste is a discard from some physical activity and we are all looking backward from the standpoint of that activity insofar as we consider the subject at all.

We use too readily the terms waste, trash, scrap, swill, garbage, junk and similar terms of contempt.

What can we suggest to overcome or to lessen these shortcomings? We[1] can combine large groups of waste producers, either coöperatively, or as contributors or customers of a general organization, to handle all types of waste produced or used by the group. Thus we can gain sufficient tonnage of all important items to allow of proper grading, marketing and shipping, even though none of the contributors may have enough by himself to warrant him in even saving those items.

We gain, on account of the volume of the combined business, an organization, plant and equipment for economical handling, wise storage and manipulation, proper grading and in some cases manufacturing, as well as experimental research and development work which would not be warranted in the case of most of the contributors.

[1] A successful experiment along this line is now thriving in Akron, Ohio, in the work of the Akron Industrial Salvage Company, of which Mr. Sherman is president.

We gain a stability not available to the narrow specialist, due to the fact that the handicaps of some line, from time to time, are counterbalanced by the unusual advantages of some other lines.

We conserve values that are now being lost because there is no proper and comprehensive mechanism available for them all.

We gain such a multitude of problems that we can always grow, even though our solutions of former problems do react and cut down the margin of profit as the improvement becomes general knowledge.

We can eliminate the housecleaning feature for our government because we have taken all wastes and have, therefore, left nothing behind.

It is well to note here that no organization can properly solve all these problems, but the plan outlined can handle everything in some way and reduce to a minimum the items and quantities which have to be thrown away or destroyed because no solution has been found.

We can, and this is the large basic feature on which the whole program rests, produce a different psychological attitude on the part of all of us toward this subject by encouraging and popularizing the use of the words salvage, reclamation, conservation and other aristocrats of the scrap dictionary which imply the saving or conversion of lost material into legitimate merchandise.

We can take the subject seriously and realize that: "Nothing useless is or low." But, principally we must learn to think always of the next man along the line, to put ourselves in his place and to look at our wastes not backward as a discard to be gotten rid of and forgotten, but forward from the standpoint of the consumer to whom they are raw materials.

When this point is gained it will be immediately realized that these raw materials are of greater value, if properly graded as to condition, size, quality, etc., and particularly as to freedom from dirt or other foreign material or from damage by moisture, grease, oil, unnecessary cutting, etc., than if mishandled in any of these or other ways. This point of view must be universal and its application must become habitual to get the best and maximum results.

The people actually producing the waste, whether metal chips, or cloth trimmings, or scrap paper, or garbage from home or restaurant, or rubber trimmings, or oil from machinery, or empty barrels, or tin foil from about a package, or foundry dross, or tin cans, or bottles, or feathers, or any other of the countless items which reach the waste channels of the country, must have this point of view and the habit of so handling these items as to preserve the greatest value possible for the industry waiting for them as raw materials.

The foremen and the management of factories where these people produce the waste materials must have this point of view and habit of thought so that they will supply to their work people the necessary facilities to make it convenient to preserve waste values. And in general everybody must do likewise. Thus we have developed, either as salvage departments in large factories, or as coöperative companies, a business program for getting maximum values out of waste.

Reference has been made to a few of the educational influences affecting the people actually handling the materials.

INSPIRATIONAL INFLUENCES

Let us see now what other influences there are and what other groups are affected by any of these influences.

There is the influence of a large volume of business forcing attention and respect and reacting to a scrutiny of the wastes controlled by the observer or his company.

There is the influence of money made by the handling of wastes properly over and above that made by the usual house-cleaning attitude. This arouses interest and enthusiasm over the prospect that the observer may share this money by handling his own waste products in the same way.

There is the influence of the objection of all normal mature minds to deliberate waste. These minds condone and even endorse wasteful methods because "familiarity breeds contempt," and because no adequate or better method of solving a pressing problem of waste disposal has been brought to their attention. But when a new or better method is available, this normal objection to waste awakens from its sleep and strives to equal, eliminate or surpass the program presented.

There is the influence of interest in anything new, of instinctive wonder at the simplicity of a process or machine seen for the first time, and of a wish to try it out or to improve upon it and in general to utilize the inventive faculty more or less dormant in the average mind.

There is the influence of order and cleanliness which is an important feature of the programs described above and whose impression is deeper because of the unusual difficulty of keeping materials of this nature clean and orderly.

There is a tendency to coöperation between the management and the organization handling these materials because no part of the group can get very far away from physical handling without losing touch with the life of the business. This is so, because of the continually changing type, condition and variety of the items. Thus the organization is and must be interested in all of its problems. The company's officers, foremen, clerks and workers, are allowed in on any and all discussions of physical problems and the nucleus of the solution is just as likely to come from the most humble worker as from the superintendent, manager or president. This working together produces harmony and a spirit of team work and pride in the company or department that is invaluable.

These influences and others along the same line can all be grouped under the head of inspirational influences. They are all breeders of enthusiasm.

No system of education gets anywhere without the interest and enthusiasm of the teacher and pupil. Knowledge is most effective, permanent and valuable when acquired unconsciously, incidental to the handling of normal obviously necessary work or problems, rather than deliberately, as it seems to be necessary to acquire most book learning. The modern handling of salvage problems does not necessarily teach details or facts or rules, but it does arouse the interest, enthusiasm, imagination and inventive faculties of the entire organization concerned in the work from top to bottom.

And right here let me say that this

type of education is sometimes most sorely needed at the so-called top of the organization as well as at the bottom and in the middle. We must not overlook our obligation to the poor abused capitalist and officials while we are offering the best we have to our masters who work mostly with their hands. These same influences expand and have their inspirational effect on the departments delivering material to or getting material from a salvage department; on the companies or individuals supplying wastes to or buying products from the salvage company; and on the waste specialists, whose very success is built on keeping awake and learning wherever learning is to be had.

But, you ask, "Do these theories as to the inspirational value of the modern salvage attitude work out?" I reply without hesitation that in some cases the results are so discouraging along this line that they would seem to disprove conclusively the theories advanced. On the other hand, when men and women so develop in this work that they attract attention outside of the department and are transferred in spite of salvage department protest, it means something more than an exceptional person accidentally located in this work. These cases have been too frequent for the good of the department.

Again, when a department acquires and maintains a reputation for united loyalty and team work, the method under discussion can doubtless be credited at least partially.

Then when the rate of turnover, unfortunately very high in these days of restlessness and turmoil, maintains an average materially lower than that of the factory as a whole, we must credit a few points at least to our program.

It is also an impressive fact that the full coöperation of other departments and companies has been developed,—and it has been developed from an initial attitude of skepticism.

But most conclusive of all is a talk with the individuals not only in this group, but also in the departments and companies coming in touch with the activities of the group. That is conclusive.

In saving waste, we have inspired the workers of hand and head.

EVERYTHING HAS A VALUE.

Efficiency and Thrift

The New Demand upon the Industrial World

By W. Rockwood Conover

General Electric Company, Schenectady, New York

Industry the Basis of National Prosperity

INDUSTRY in its manifold forms is the recognized foundation of human existence. It is thus both historically and coincidentally the economic basis of the state and of our national government. A large proportion of the aggregate of human endeavor is measured by the visible evidences of material benefit derived from organized forms of productive labor. In time of peace industrial enterprise is an essential element in the development of the race, the upbuilding and growth of communities, the establishment of order, the stability and permanency of both state and national governments, and the conduct of private life. In time of conflict it becomes a vitally important factor in equipping and sustaining contending armies in the field, and the indispensable source of maintenance of the engines of war.

The Part of Industry in Reconstruction

During the period of reconstruction and rehabilitation of the world upon which we are entering it will devolve upon industry to do a large share in bringing about the improved conditions which we are seeking to attain. Not only will industrial efficiency be measured by the value and character of the service rendered to the people at large in supplying an abundance of products, but it will also be measured by the degree of economy and thrift with which the products essential to business and private life are produced —the amount in dollars and cents which is saved to the consumer in manufacturing and distributing costs. Our progress thus far in the work of reconstruction has, in no small degree, been retarded by the world-wide spirit of unrest. We have been appalled to learn the extent of certain forms of propaganda having for their purpose the upheaval of existing conditions both in government and business and the overthrow of the established order of both national and private life. Labor strikes, both in this country and in Europe, have accomplished the disorganization of the normal functions of human activity. We are, for these reasons, facing a future of industrial uncertainties which at present offer little hope of a speedy adjustment of the many perplexing problems before us or a permanent reestablishment of a rightly ordered basis of living.

Importance of Industrial Efficiency

In view of these facts it becomes imperative that all our industrial operations be placed upon a higher plane of efficiency and economy in order to render a larger measure of assistance during the present period of increasing unrest and distress. It is essential that manufacturers and

managers everywhere institute anew processes of investigation and analysis in order to determine where they stand in the competitive scale of productive power among the industries of the world. Extravagance and waste and inefficiency have heretofore been nearly universal. Nowhere have invested wealth and capital attained a full measure of success commensurate with the possibilities involved, or produced results representing one hundred per cent utility of equipment and facilities supplied. Large resources have been devoted to industrial enterprise only to demonstrate that net earnings are not comparable with initial expenditures, and nowhere do we obtain the full benefit of human effort or the largest product possible through the consumption of labor and material.

Many industries are handicapped by high manufacturing costs through failure to establish proper systems of economic control in all the functions of industrial operation. In many manufacturing plants there is evident a large degree of inefficiency and waste, coincident with which there usually exists a lack of coordination and cooperation in the functions of management and factory supervision. Losses and delays in production occur because of incorrect or incomplete designing, improper and inadequate distribution and supply of tools and materials to the shop, incomplete drawings and instructions to the workmen, and lack of care in authorizing and following out production schedules. To these add defective equipment, unsanitary shop conditions and lack of interest in the individual, and we have the chief explanation of the universal decreased effectiveness of human endeavor and the inevitable curtailment of the volume of industrial product.

Statements of the ratio between capacity and accomplishment in industrial undertakings are sometimes exaggerated and pessimistic, but one does not need to look far to perceive that too large a factor of the world's labor is expended in the consumption of man-power and energy without a satisfactory commensurate return.

ORGANIZATION FOR MORE EFFICIENT SERVICE

We have a gigantic task, a stupendous work, to perform, if we are to meet all the problems of reconstruction at home and render our share of service in rehabilitating the war-torn and ravaged sections of the earth. We cannot hope to accomplish this task rightly and completely without a changed vision of the problems of production, of commerce and labor and of the distribution of the material necessities of life. It will not be sufficient simply to produce in quantity. It will be our greater duty to establish a higher order of efficiency and to practice a degree of thrift in all our industrial processes which will enable us to meet the pressing needs of the people at greatly reduced manufacturing costs.

New Lines of Organization

The organization of new industrial undertakings will doubtless have to be developed along new lines. Industries will need to be established for more definite and specific purposes. The plans for founding new business or building new factories must give greater consideration to a proper differentiation between that portion of the product or apparatus which it is desirable to manufacture at the home

assembly plant and those parts or details which can be purchased with greater economic advantage from outside concerns engaged in the production of small parts. Because of this fact it will be necessary to analyze more exhaustively the principal phases of proposed organization and all acts relating to the founding of a new industry in the beginning, in order to proceed with fully defined plans in reference to the nature and extent of the equipment required, lay-out and construction of departments and buildings, and the spaces to be allotted to receiving, shipping, storage, etc.

Concentration of productive processes and of tools and equipment on the one hand, and segregation of manufacture on the other, must be studied in the relations which they bear to transportation, to available sources of supply, to advantages in making purchasing contracts, to productive efficiency, and coincidentally and directly to economic and profitable factory costs.

New Principles of Management

The advanced principles of management and supervision must receive a new degree of attention, and more scientific thought and study must be given to the subject of coordination and cooperation of executive and productive forces. Greater concentration of authority and of all official acts, the elimination of repetition and duplication of directive effort, and the establishment of higher standards of operation, involving greater speed and precision and greater finality in all the rules of shop practice, will be essential to meet the demands of progress in the new industrial period that is before us. New standards must be set up as rapidly as new experiences have developed new knowledge and have demonstrated more practical methods of performing either official or mechanical work.

Constructive Engineering and Designing

Our engineering and designing work will need to be more constructive, more final in its application to shop processes. The experimental stage of new designs will have to be wrought out and completed in a field or department by itself. The new order of things and the rapidity with which a new invention of public or private utility must be put into production will render imperative a greater degree of completeness and refinement in design than has heretofore been realized. When the shop starts work it must be with well defined plans and instructions, with no stoppage of productive processes through uncertainty or lack of information, and with the stamp of finality and accuracy upon every workman's drawing as he takes up each new task on bench or machine.

Improved Production Routine

In the organization of production routine there must be a broader and more intimate knowledge of shop conditions, in order that the movement of materials in rapid, progressive order and sequence of operations may be provided for, and the delivery of separate details to the assembly floor with regularity and certainty accomplished. This will involve a more extended analysis of both human labor and shop equipment, a rearrangement frequently of men and machine tools, in order to systematize movements and secure greater precision of actions both manual and mechanical. It will involve a greater

refinement of shop processes, the substitution of modern tools for old, of machine performance for manual tasks, and a general speeding up of all operations in effective unison of effort toward a common end.

The old methods of handling production must be eliminated from present industrial establishments and the progressive shop of the future. The distributing of tools and materials, instituting schedules of output, or providing the workman with drawings and instructions, must be with such accuracy and promptness of service as shall render the application of all directive effort to manufacturing processes efficient and complete.

Production routine cannot be divorced from indirect labor in any analysis looking toward improvement in industrial processes as a whole. The systematic supply and movement of materials through successive machine and assembly operations are directly dependent upon the expense forces of the shop. These forces need to be organized into units of proper size for harmonious action and cooperative effort. Careful supervision and patient instruction need to be given, the standard of service raised and a higher degree of efficiency established in the same manner that we demand precision and cohesion in mechanical work.

Purchasing Raw Materials

The purchasing department has a new and added burden and a more difficult task to perform brought about by the world war. Many new problems are involved in obtaining the factory's supply of raw materials which did not exist three years ago. With increased cost of metals and fabrics other influences have combined to make the work of the purchasing agent hard and often impossible of result. Retarded output due to strikes, increasing consumption and demand in every part of the world, congestion and delays in transportation, all tend to render the obtaining of stocks more and more a matter of uncertainty and delay.

With these increasing difficulties greater effort must be made, not only to find new available sources of supply, but to conserve and save in the purchase and use of everything required by the shop. System of control must be set up in every department and rigid rules of economy established which shall make impossible the improper employment or wasting of anything of inherent value. This will involve the instituting of new methods of procedure in most factories, for as a nation and as individuals we have not yet taught ourselves the full lesson of economy either in the administration of government or of industrial enterprise. We are predisposed to extravagance and waste, to inordinate desire to have everything in abundance, to the consumption of many material things which cannot be demonstrated to be of essential value to either our physical well being or our mental advancement and growth. Not only productive stocks but expense supplies and materials for maintenance of equipment and for the prosecution of daily office and shop routine must receive greater attention than in the past, and new practices be established which will limit and conserve the use of these materials within the bounds of carefully regulated and scheduled manufacturing requirements.

Greater Efficiency in Power Production

The production of power, heat, and light is a field demanding special attention at the present time. It offers new opportunity for vast improvements in the type and character of installations, and a higher degree of economy in operation. The present fuel shortage lays new emphasis upon the need for more investigation and study, on the part of manufacturers and managers, into the cost of electrical energy and of steam for heating and manufacturing purposes. New stations will have to be built and extensions planned to provide for large increases in generating capacity. The old equipment of engines and boilers must be rapidly superseded by modern apparatus before power can take its proper place among other functions of industry already engaged in the conservation and building up of the world's resources. There must be immediate recognition of the need for more efficient installations from year to year, more scientific methods of operation and better systems of control of consumption in the shop, in order to keep pace with the present and future growth of industrial supply and demand.

Conserving Industrial Wastes

A new interest has been awakened in the subject of salvaging wastes which is obviously the direct result of the war. Conservation in industry has within the brief space of less than three years become a world-wide slogan. The world is fast becoming aroused to the fact, that saving is now one of the chief, vital principles of existence; that the extravagant, wasteful practices of the past mean ruin to the nation continuing them, and that it is necessary to remould our thought and action to higher standards in both political and economic life.

In industry these words have assumed a new and more vital significance for us since our entrance into the world's struggle to establish a firmer, more stable foundation of peace. Saving and utilizing the by-products of production have gained a new prominence among other established practices of recognized value in engineering and manufacturing. There now exists a paramount necessity to save everything of inherent value which cannot be ignored or gainsaid. It is becoming pressingly evident that we must reorganize our present practices both in business and manufacturing in order to meet the new problems brought about by the world war. It is plainly the duty of industrial managers everywhere, of the leaders of big business of every kind and of the citizen in every calling of life, to study in this great crisis the conservation of waste and the salvaging of the by-products of production and every-day living as never before in the history of our country. Not a pound of metal or fabric; not a drop of essential oils or chemicals; not a piece of leather, rubber or wood; not even a scrap of paper, should be allowed to go to waste or escape the process of reclamation.

Salvaging industrial wastes has a more far-reaching significance than most people realize. The necessity for universal, energetic action is now multiplied a thousand fold. It is obvious that the unnecessary consumption of finished fabrics or failure to reclaim by-products necessitates increased production of raw materials, and increased production, of whatever nature, means additional labor, addi-

tional transportation facilities, the tying up of railway equipment and congestion of traffic; all of which seriously affect the movement of the long list of products required by the consumer.

The conservation of by-products is more emphatically brought to our attention by the exigencies of the great industrial struggle now going on, by the measure of uncertainty of continued and uninterrupted production of many of the important commodities of life, and by the increase in living expenses of the people beyond reasonable and just bounds. There appears at present no ray of light forecasting to a satisfactory degree the establishment of a properly stabilized condition of things in the industrial labor field.

The gigantic strides of business, the growth of new communities, the wealth of big cities and the world-wide demand for products have all tended to develop a confidence in our abounding resources and a habit of wastefulness both in production and consumption. This tendency has been conspicuous in governmental operations, in the building and operation of systems of transportation, in many public enterprises, and in the operation of manufacturing plants as well. Contiguous areas between shops, as well as factory floors and storerooms, show accumulations of metals and other materials, left over from productive processes or from the work of maintenance and repairs. Lack of time and reduced labor forces make it convenient to leave the disposal of these materials to some future date.

Successive inventories frequently show lists of parts held for possible supply orders which could judiciously be turned into the scrap market at advantageous prices and thus aid in maintaining the country's supply of essential metals. Comparatively few industries are free from these accumulations and few realize the extent of the loss entailed through neglect to save and sell their by-products systematically, as an important part of business. It is essential, now more than at any previous period in the history of manufacturing, that industrial managers give a fuller consideration to this most vital of factory subjects.

It is the practice of many managers to devote their attention chiefly to getting out large shipments of product, piling up profit and loss surplus, leading in novel engineering designs and in an efficient performance of manual and mechanical processes in the shop, while the conservation of wastes and utilization of factory by-products receive only a limited degree of attention. The failure to utilize by-products in these industries does not represent the true degree of efficiency with which manufacturing processes as a whole are conducted, nor may it always be a definite measurement of managerial and executive ability.

It may not always follow that the organization which does not pay systematic attention to this important phase of business is not progressive in other functions of manufacturing. It can, however, be stated as a generally accepted truth, that the industry which gives special care and consideration to the problems of thrift in general excels in all other phases of industrial operation, whether relating to executive capacities or to mechanical processes. Wastefulness is both a direct cause and result of errors in operation, a cause of decrease

in productive volume, of increased factory costs and a burden to the public in higher prices in finished fabrics and materials.

Waste Reclamation During the War

During the war much was done to incite the people to greater interest and activity in saving wastes. The whole nation was urged to establish practices of thrift and economy and to conserve materials in order to render assistance to the government in its time of need. The Reclamation Service of the Department of Commerce did a most valuable work in teaching the country to save. All kinds of metals, steel, iron, copper, brass, aluminum and alloys, and a variety of wastes such as rubber, rope, paper, cotton fabrics, bags, barrels, boxes, oils, chemicals, and residues of many sorts and kinds were reclaimed by manufacturers and by the people at large and sold or converted into by-products and bases of use in the prosecution of the war and of industrial enterprise.

During the period of conflict the amount of waste materials gathered increased approximately twenty-five per cent. In the year 1918 several items, including scrap metals, paper, rags, wool waste, bags and cotton linters aggregated more than one and one-half million dollars. The government itself took unusual interest in the work of conservation and reorganized its methods of disposing of waste. Many materials which the Army and Navy had disposed of by dumping and burning were carefully saved, sorted and classified and utilized or disposed of to good advantage.

The railroads also have caught the spirit of better economy and have developed new practices in the field of conservation which have netted many millions in money return for scrap sold and in valuable materials saved for further use.

The larger industries of the country are rapidly beginning to view this subject in a new light and to assume their share of responsibility in this great work of putting human activity and human living on a more efficient, progressive and sounder economic basis. One of our big electrical plants is reclaiming more than eighty million pounds of scrap products annually. Others are studying the subject with a new interest and establishing systems which make for better economy and thrift. Such is the work of organization and such are the results which may be secured.

The Need of Permanent Reclamation Service

It is to be keenly regretted that the Senate Appropriations Committee failed to make any appropriation for the continuance of the Reclamation Service. Because of this fact the office has been closed. In view of the universal, pressing need for greater conservation and the almost incalculable value of the work to the nation, it is difficult to conceive any true justification of the committe's action. It requires but slight analysis to convince us that the department should be maintained as a permanent government service to the people. Through this office practical appeal could be made to the governors of states, through the governors of states to mayors of cities and presidents of villages, and through these latter men to the heads of boards of trade and to public spirited citizens, to cooperate in the great work of saving the nation's wastes. Through this channel also

could be disseminated much useful knowledge and instruction relating to the work of reclamation, which would thus reach in a helpful way not only the populous industrial centers but the outlying districts as well, and by this means bring about a widespread, concerted action for the public good. No one may attempt to predict the full extent of the value or the aggregate return of such a movement to the government and country at large.

A New Conception of Economy

No appeal to the manufacturer to save and utilize by-products can be made too forcible or too strong. What we need throughout the whole extent of America today is to learn individually and collectively as a nation the vital principles of economy and conservation. We need as a people to learn to save everything, of whatever intrinsic value, not simply during the present moment of great world-wide demand, not simply during the coming period of reconstruction work, but for all time to come. There is insistent need to establish those principles of thrift and economy in all our industrial undertakings, which shall make extravagance and wasteful practices things to be decried, and shall set a price of honor and credit upon the saving of the so-called unimportant things—the smaller by-products of manufacturing.

It should be the purpose of the management of industries, both large and small, in all parts of the country, to conserve everything possessed of inherent value. Proper consideration must be given to the cost of accumulation and preparation for market, but the work of reclamation should be carried on to as large an extent as possible consistent with conditions and without actual loss. Improved methods of sorting and handling will usually permit a wider range of classifications which result in obtaining higher prices for the various classes and grades. The question of profit, however, in the process of reclamation should not always be the chief or deciding factor. It should be our aim to render all the assistance possible both to the national government and to the mills which manufacture raw materials or finished fabrics, in conserving everything that may be of use in production, and in consistently following out this principle we will be of practical service to the public at large.

Conservation of Human Labor

The factor of human labor has assumed a new and most important place in all industrial operations. During the recent world conflict its importance was multiplied a thousand fold. Today every productive process is manifestly dependent either directly or indirectly upon the constant application of human energy, mental or physical. It is evident, therefore, as we take up the work of reconstruction, that our efforts cannot be successfully carried forward without the coöperation of the individual and of skilled labor as a class. All our plans looking toward the establishment of a higher order of efficiency in manufacturing and a greater degree of economy must include the workmen whom we employ. It is now a part of our duty to teach them habits of thrift, the way to become provident, the way to accumulate and save. We must afford them assistance and encouragement in establishing homes, in investing in

real estate and bonds, in buying shares in the factories where they labor, in protecting their families with safe insurance, in educating their children, and in any and all ways help them in the growth and development of higher standards of life.

Now, as never before in the world's history, nations and governments are looking to industry to do the greater share in the united effort to establish an era of permanent prosperity and peace. And what does it all mean? It means that man-power at home is as big as man-power in the trench. It means that economy of effort and precision in action are as important in the factory as science and discipline on the fields of battle. Conserving human energy and devoting it to the business of the world's production must be accomplished by training and study just as definitely as we train for the scientific practices of war. New methods in the employment of help, adapting men to tasks for which they are fitted, training them for higher service, instructing them in economy of physical strength, educating them in the maintenance of health and comfort and safety, are all problems of management which emphasize the greater responsibility of the nation's immediate future.

It is essential that the highest accomplishments possible of attainment shall be realized in all industrial enterprise. The call is to industry. If we are to attain political freedom and economic stability throughout the countries of the world, it must be through a higher refinement of man-power—a fuller degree of perfection in all the varied forms of manual and mechanical art. Systems of control must be set up in every factory in the land; analyses of all manufacturing operations, of official and directive functions, of every detailed process of production, must be instituted, which shall make possible the highest degree of perfection in all human endeavor.

Requisites of a Good Investment

By Albert W. Atwood
Princeton, New Jersey

Suitable Investments for the Masses

It is the purpose of this brief article to consider a few essential factors of the problem of providing suitable investments for the masses of the people. I am not concerned with the investment problem of the businessman, so-called, or of the more prosperous professional. The important question which the country must face is that of inducing the great bulk of its wage earners to save. Provided they do save what then is to become of their funds?

Opportunities Offered

Speculative Stocks

It must be agreed and admitted at the outset that the small investor should not risk or speculate with his funds. This is hard doctrine because the little fellow likes to take a chance as well as the big one. Indeed the promoters of dubious stocks make out a specious but alluring argument for financial democracy, one might say, when they offer oil or mining stocks that promise fabulous returns.

"Why labor for years?" they ask. Why put your money into cold vault like repositories? What the average man wants is not a repository for his money, but a good thing. Bankers, financial writers and advisers—all these tell you to put your money in the savings bank. Why not take a try at fortune? The millionaire made his money by taking big chances, and by making lucky strikes. I will give you a chance at the same game."

Not until the offering of speculative stock to people of small means is widely recognized as charlatanism of the worst kind will much progress be made in spreading sound investments among the masses. I refer of course to promiscuous, miscellaneous stock offerings, and not to the purchase of shares in recognized, established transportation and industrial companies directly by the worker in those companies. It would be a hard doctrine indeed that the masses, most of whom are destined to remain wage earners all their lives, should never invest except in low interest bearing securities.

Profit Sharing

The opportunity for profit making on the part of the wage earner, aside from what is technically known as profit sharing, may come, and in increasing numbers of cases probably will come, through the purchase of stock in the company for which he works.

Government Securities

Cannot this whole problem of suitability and adaptability of investments for the people be treated in a brief, simple manner? Is it not solely a matter of degree? By that I mean that disadvantages such as risk, inconvenience, lack of marketability and the like in return for which the owner expects larger profits, should be assumed in increasing measure

only as the investor progresses in wealth.

Elimination of Risk.—The poorer the investor the fewer "outs" should there be to his investments. The wealthier the investor the more chances can he afford to assume in return for the possibility of large gains. This is a simple principle, an A B C of the subject, but I think that even among experts its practical applications are often overlooked.

Let us start with the young married man, the workman or clerk of twenty-seven years, with a wife and one or two children. What should he invest in? Obviously in government savings stamps or in a good, strong savings bank. Frankly I do not think there is much choice between them. These two forms certainly come nearer to investment perfection for the young man of our imaginings than any other.

In either case he has a high degree of security, although of course the savings stamp of the government is safer theoretically than the savings bank. But for practical purposes it is well known that certain classes of savings banks are sufficiently free from risk. In other words the young clerk will not lose his hard won savings in either place. That is the first consideration. There is of course the Postal Savings Bank, but I take it that with the higher rate of interest paid upon government savings stamps and upon savings bank deposits there is no advantage in urging the merits of Postal Savings.

Convenience.—In the next place the stamps and the savings banks, or rather the certificates which are built up upon a collection of stamps, offer great convenience in the matter of deposit and withdrawal. There is not only convenience but freedom in these matters; also sufficient privacy. This applies both to the elements of time and of amount. Finally there is freedom from taxation.

Limits of Government Securities and Savings Accounts.—How any sane and honest person can urge the wage earner to invest elsewhere until he has at least enough in the savings bank or in government securities of a non-fluctuating character to meet sudden emergencies I cannot conceive. Further let me say that I do not regard these two forms of investment as wholly synonymous and interchangeable. The wage earner should (if he lives where there is a savings bank) have both. The government stamps or certificates are the safest investment on earth, but it would be a mistake for the wage earner to put several hundred dollars into them and none into the bank. For the savings bank account gives him a standing in the community, and affords him advantages when it comes to making loans and obtaining information regarding business or financial subjects which the government securities do not afford. A savings bank account, to be quite frank about it, has ulterior advantages which the government securities lack.

Life Insurance

Next in order for the worker who has dependents is life insurance. This, I think, is too obvious to require elaboration. Often it is well to keep on buying life insurance up to large sums, many thousands of dollars in fact, before any other investment whatever is even considered. Why waste time talking about the relative advantages of public utility bonds as against preferred industrial stocks for, let us say, a bookkeeper when we

know perfectly well that if he should die his family would be in dire want. It is utter piffle, and I think that a large part of the efforts of stock brokers and bond houses, or investment bankers, to win the small investor are entirely injurious and pernicious. These people that are sought out are still in many cases about twenty thousand dollars below the point where they should become direct investors at all. They are still in the life insurance stage.

Somewhere along here the clerk with the wife and child should be taught to open a regular checking bank account, for the convenience which it affords and also for the standing which it gives him in the community.

Having acquired a good little nest egg in the form of a savings bank deposit or government savings stamps, or both; having taken out ample life insurance and opened a bank account big enough to take care of current bills, then the young man had better consider the purchase of Liberty bonds and a home. I refer of course to piping times of peace and not to war times when to purchase a Liberty bond is an essential of patriotism.

Certainly the clerk should not buy even a Liberty bond any earlier in his financial progress than this, because the bond is subject to market fluctuation and no one is warranted in urging upon him the risks of the market until he has various back logs of the kind already described. As for a home, the wisdom of its purchase depends of course to some extent upon the young man's location, upon whether his job is reasonably permanent and other similar considerations. But generally speaking it is a good investment and pays dividends of family happiness and good citizenship which cannot be expected of a bond or stock in a corporation of which the owner hardly knows the name.

Building and Loan Associations

Next let our clerical friend look into the building and loan in his town or the credit union, if there is one, in his own office. Or perhaps his firm is offering stock to its employees. This is the one case where he can judge direct investments. Of course many employees do not like to buy stock in the concern for which they work because they fear it will tie them to their present employer or because it may give the employer an excuse to reduce their wages. But if these dangers are guarded against, if the independence of the worker is in no way infringed upon by a stock selling arrangement, or if the worker prefers to stay in one place and cast in his lot more or less permanently with one concern, then the more widely the custom of inducing employees to invest in the business the better.

With many thousands of workers, especially of the clerical and more highly skilled classes, I see no reason why investment should take any other form after the more primary requirements already referred to have been taken care of. Of course I recognize the danger of possible abuse. Fly-by-night concerns might enlist their employees' money and decamp with it. But even the more ignorant worker can form a fair judgment as to whether the concern which employs him is of that variety.

Certainly he can form a hundred times better judgment than of a concern for which he does not work. And the corporations which have

offered stock to employees thus far have in most cases been highly successful. A concern must be fairly stable before it can really make any headway in such financing.

If our clerk still goes on earning enough for further investment—if he feels he has put all that is safe in his own concern or if his employer does not offer him stock—then let him study outside offerings, first of bonds and then of stocks. But I feel that there is no such hurry to educate the small investor in direct participation in corporate bonds and stocks as many experts insist. After the young man has provided for himself in the manner here briefly outlined then there will be time enough to consider the bewildering variety of direct investments, with their qualities, their suitabilities and adaptabilities.

Speculation and the Small Investor

By Theo. H. Price
Editor of Commerce and Finance

Chance a Factor in Life

FROM the cradle to the grave life is a speculation. It has been said that "We are all under sentence of death with an indefinite reprieve," but most of us, nevertheless, calculate upon at least an average life and make our plans accordingly. Facing, as we do from hour to hour, the chances of illness, accident or financial disaster, it is not surprising that we should become more or less callous to the hazards of existence and be willing to increase them by putting our money, when we have it, into schemes or investments that promise or are described as promising large returns.

It is the essential uncertainty of life coupled with the hope that each individual entertains that he may be more lucky than his fellows that is at the bottom of the speculative instinct that most men and women evince. This instinct is a sound one, for without it progress would be impossible.

We have the spirit of adventure to thank for nearly all the great discoveries that have advanced mankind. It has been very truthfully said that "if our alphabet were ideographic instead of phonetic, the words conservative and unprogressive would look very much alike" and the speculative instinct is not to be discouraged, for through its exercise Columbus discovered America and the political and scientific pioneers of all generations have opened up opportunities by which humanity has profited.

Pitfalls of Speculation

In thus acclaiming speculation it is, however, important to carefully differentiate it from gambling. Speculation has been defined as hazard plus intelligence, gambling as hazard without intelligence, and if we bear these contrasting definitions in mind it will not be difficult for us to avoid the pitfalls that the unscrupulous provide for those who are willing to risk their money thoughtlessly.

In an effort to protect the careless or gullible members of society against themselves many of the states have enacted what are called Blue Sky Laws designed to make fraudulent promotion, over-capitalization and stock swindles impossible, but there are no laws that can give a fool immunity from the consequence of his folly, and it is questionable whether the Blue Sky Laws haven't done more harm than good in that they lead many to believe that the securities that are issued in accordance with their provisions may be bought as safe investments without further investigation.

It is, in fact, extremely doubtful whether the judgment of men can be educated or clarified by legislation which seeks to make the exercise of a discriminating and studious intelligence unnecessary, and since chance is a factor in the problem of life that cannot be eliminated, a study of the law of chance is necessary in order to deal with it intelligently.

THE LAW OF CHANCE

The great astronomer, Richard Anthony Proctor, was the first authority of note to develop the law of chance. By a series of experiments extending over a number of years he discovered and proved that where the chances were theoretically equal, it was necessary that they should be taken an almost infinite number of times in order that the results might equally counterbalance each other. Thus, he asserts, it is not certain that a well balanced coin thrown into the air even a million times will come down *heads up* 500,000 times and *tails up* 500,000 times at the end of the experiment, and the first postulate of the law of chance that should be taken into consideration is the factor of luck. We must make allowance for it in all our calculations and endeavor, in so far as it is humanly possible, to put ourselves beyond its operation. For this reason, no one should embark in any speculation, however promising, unless his knowledge of the business involved and the conditions surrounding it are sufficiently intimate and personal to enable him to feel sure that the probabilities at least favor the expectation of a profitable result.

CHANCE INVESTMENTS

Since no one can be thoroughly informed with regard to more than one or two of life's more important financial, industrial, commercial or agricultural activities, it is a corollary of the foregoing statement that it is exceedingly unwise and hazardous for anyone to put his money into a business with which he is unfamiliar unless he makes the investment upon the advice of a trustworthy person in whose knowledge of the proposed investment he has profound confidence.

It is, for instance, foolish for a farmer to invest his hard earned savings in land that he has never seen and concerning whose agricultural possibilities or market value he has no first hand knowledge. It is equally foolish for any one else, no matter how he may have made his money, to invest it in any security of whose value he cannot convince himself by personal examination or in regard to which he is unable to obtain trustworthy information from a person in whose knowledge and good faith he has complete confidence.

As a generalization, therefore, it may be said that it will be wise to make it a rule not to invest any money in things concerning which we are unable to inform ourselves by personal examination, unless we base our action upon the advice of those who are specialists in the business concerned and of whose integrity we are entirely confident. In the field of corporate investments, meaning thereby the stocks and bonds of corporations, there are throughout the United States a number of high class and responsible concerns, firms or companies whose business it is to select sound enterprises in which the money of their clients may be invested. To the consideration of the problems involved they bring years of experience and training. They are thoroughly alive to the fact that if they make mistakes they will lose the prestige and confidence that they enjoy in the financial world, and while they err occasionally their judgment is, as a rule, sound. It is, therefore, safe to say that no one having money to invest should buy the securities of any corporation unless they are recommended or endorsed by some responsible investment concern.

The fly-by-night-salesman who comes into your town with a fairy

story in regard to the distant oil well or mine into which he asks you to put your money should be summarily dismissed with the suggestion that he submit his proposals to the nearest successful banker and that you will consider them only after that banker has approved of them. The land agent who seeks to sell you property in the Everglades of Florida or the Great American Desert upon the theory that it can be reclaimed and made to blossom like the rose by the expenditure of a little money should be similarly treated. The promoter of a company that controls a patent for a machine that will do the work of one thousand men should be required to furnish indubitable proof of the machine's efficiency and its successful commercialization before you allow him to persuade you to put your hard earned savings into the corporation that has been organized for its development.

If you are, however, disposed to take long chances and are convinced of the good faith and honesty of those who are inviting you to make the hazard you should then feel sure that the odds in your favor are sufficiently high enough. For those who have money and are willing to risk a small portion of it in something that promises very large profits but involves, nevertheless, great hazard, an intelligent investment made upon a basis that promises, say, a profit of $100 for every dollar invested is not perhaps unwise, but in making hazardous investments of this sort care should be taken to apply the principle of average as in the case of insurance, and a sufficient number of such investments should be made in different enterprises to allow for an unfavorable result in the case of most of them.

There are some investors who apply this law of average scientifically. They put a small sum into each new enterprise that is brought to their attention under respectable auspices upon the theory that although only one out of each ten may turn out profitably their gain will be sufficient to more than offset the losses that they will sustain in the case of the other nine. It is, however, hardly practicable for the average investor who has but an occasional opportunity to put his money into these extra hazardous though promising enterprises to adopt such a policy, and even if he did, it is questionable whether he would have the courage to pursue it in the case of the tenth investment if his nine previous ventures had been unsuccessful. The only wise course for him to pursue is, therefore, to refuse to embark upon any speculation concerning whose hazards he is not thoroughly informed, either by personal observation and experience or the testimony of those in whom he has confidence.

If he follows this rule he may possibly miss an occasional but very remote opportunity for making a large profit but he will, on the other hand, be reasonably sure to avoid the loss of his capital and will be certain to enjoy the complacency of mind which comes to those who insist upon "safety first" in the use of their money.

United States Government Bonds as Investments

By Joseph E. Cummings

School of Business, University of Minnesota, recently of the United States Treasury Department

Government Bondholders

UNTIL the spring of 1917 the average American citizen of this generation was very little interested in the investment features of his country's bonds. There have been, however, three or four previous periods of our national history during which government securities attained considerable significance in the lives and calculations of a comparatively large proportion of our citizens. In the intervals of these periods of national emergency United States bonds have been almost exclusively an investment for financial institutions and persons of wealth.

Aside from the general fact that the great mass of Americans did not acquire the habit of investing in securities of any sort, there are two chief reasons why government bonds ordinarily have been attractive to only a certain small group of institutions and wealthy investors. (1) The denominations of the bonds have been too large to be conveniently handled by small investors and the "circulation" privilege attached to many issues has operated to keep the interest rate, or at least the yield, so low as to make their purchase profitable only to national banks or those persons seeking the advantage of a tax-exempt investment. (2) The tax exemption feature, as a practical matter, has been much more valuable in the past to the wealthy person than to the individual of moderate means. These conditions, and some others of lesser force, have operated to keep the average citizen from concerning himself in ordinary times, with the investment possibilities of government securities.

Bondholders During War Periods

The financial exigencies of war have, during several periods in the past, made it imperative to raise such large sums that a comparatively wide distribution of the government's obligations became absolutely essential. In attempting to borrow money for war purposes any government is ordinarily confronted by numerous financial obstacles peculiar to war time, as well as by the increased difficulty accompanying the demands at any time for unusually great sums. These conditions make it necessary for the war-time administration to materially increase the attractiveness of its securities, not only to special groups but to the entire citizenry of the nation as well as to foreign investors, when the international situation so permits. This increased attractiveness of the securities offered, plus the promptings of patriotism and whatever coercive measures are possible, has resulted during every war period in making government bondholders of large groups of American citizens who, under ordinary circumstances, would never have seen or handled the stamped paper of their country.

The proportion of citizens who were incorporated in the bond purchasing class during our past wars has varied according to the government's comparative need for money and its ability at the time to touch the mass of its people

with inviting terms and coercive measures.

The financing of the Mexican War in 1846 and the Spanish-American struggle in 1898 called for comparatively small sums at times when the national financial conditions were so good that few persons were added to the then existing class of government security holders. On the other hand, the War of 1812 and the Civil War were prosecuted under conditions which strained the financial resources of the nation and forced a comparatively wide distribution of government bonds.

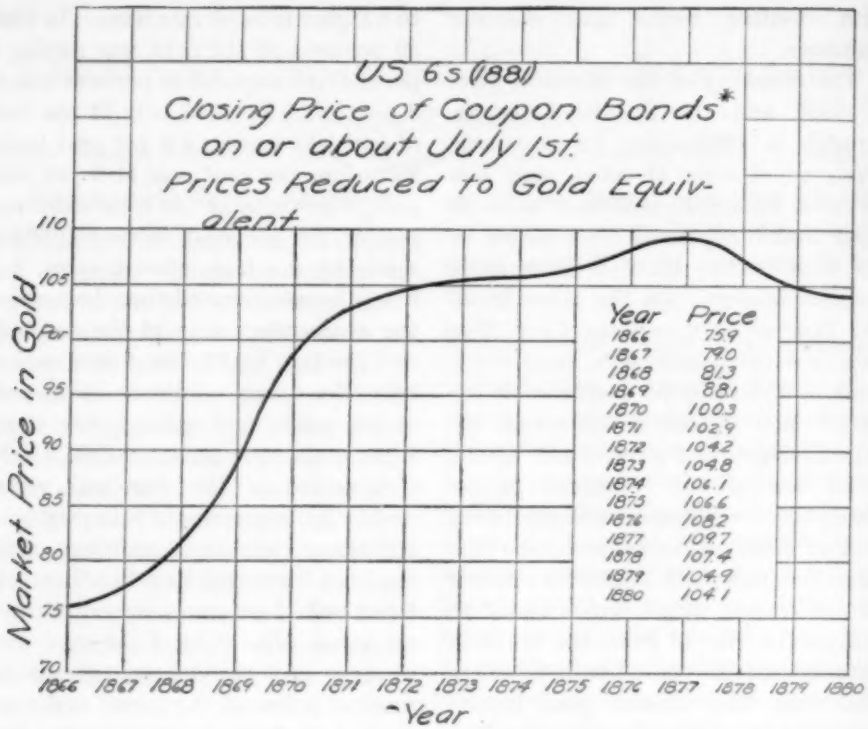
An analysis of conditions under which these war bonds were purchased and of their post-war prices on the stock exchanges will determine whether or not United States bonds issued to finance the War of 1812, the Mexican War, the Civil War, and the Spanish-American War were a good investment for the original subscribers who retained these securities or, in fact, for anyone who purchased during or immediately following the war period. Because of the present wide distribution of our Liberty Bonds and Victory Notes such an analysis should be of interest and value to the large group of persons who are concerned with the question of the probable future value of their present holdings of war bonds as well as those who are turning over in their minds the desirability of investing in Liberty Bonds[1] at present market prices.

CIVIL WAR BONDS

During the period of the war the national debt increased from about 90 millions in 1861 to over 2,700 millions in 1865. As the war went on there was a steady shifting of the national credit to a higher interest rate basis. In 1861 36 per cent of the debt was paying 5 per cent interest and 64 per cent was at 6 per cent. By 1865 only 11 per cent of our debt was on a 5 per cent basis. Fifty-four per cent was at 6 per cent and 36 per cent of the total debt was paying 7.3 per cent interest. These were the nominal interest rates, but it has been estimated that, because of the depreciated state of the currency and the fact that interest was paid in coin, the average interest being paid on the public debt amounted to about 8 per cent. Our national debt at the termination of the war was represented by approximately twenty miscellaneous varieties of securities, ranging from 5 per cent long-time bonds to 6 per cent three-year compound interest notes. The story of the conditions of issue and the subsequent market price of a few of the larger and more typical of these issues indicates that investors in Civil War bonds not only received a very profitable rate of interest, but also, in practically every instance, a substantial increase in their capital investment.

Loan of July and August, 1861.—The U. S. 6's of 1881, as they were called, were marketed at par. The bonds ran for twenty years and matured in 1881. This issue sold slowly and was placed with difficulty. On October 1, 1861, approximately 189 millions of the U. S. 6's of 1881 were outstanding. By 1866 they were quoted on the market at $106\frac{7}{8}$ currency and continued to rise steadily thereafter until approaching maturity brought about a gradual decline to par. The increase in value of these bonds was even more rapid than is indicated by market quotations in currency. All during this period the currency in which the bonds were quoted was approaching parity with

[1] The term Liberty Bond is used throughout this paper in its popular sense, *i.e.*, to include both Liberty Bonds and Victory Notes.



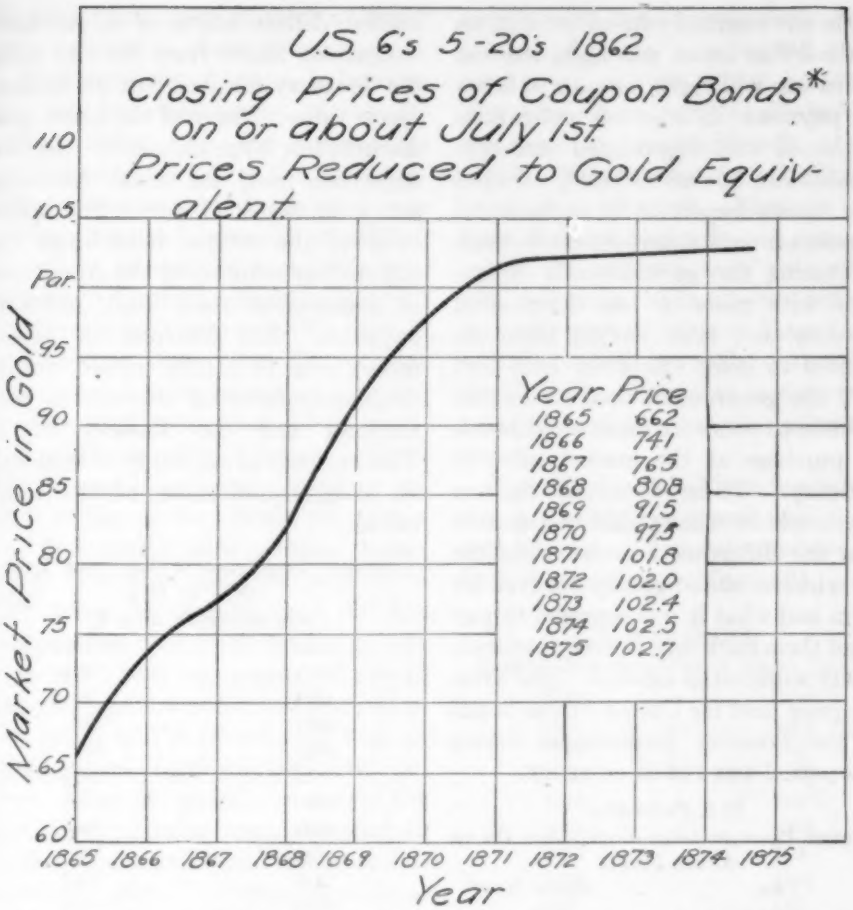
*Based on New York Exchange quotations from contemporary issues of the *Commercial and Financial Chronicle.*

gold. The chart given above shows the gold equivalent of the New York Stock Exchange quotations on this issue from 1866 to maturity.

It will be noted that by 1870, only five years after the termination of the conflict, the U. S. 6's of 1881 were quoted above par in gold and that they continued to rise in market value until 1877 when they were selling for the equivalent of approximately 110 gold.

Loan of February, 1862.—The securities issued under this act were the first of the famous "Five-Twenties." This title came from the fact that the bonds were redeemable in five years and due in twenty years. Interest was payable in coin at 6 per cent. The average selling price was 100.35 currency—the equivalent at the time of about 88 gold. On October 1, 1865, nearly 515 millions of the issue were outstanding.

The chart following shows that within three years after the end of the conflict, "Five-Twenties" were selling on the market at considerably more than their issue price in gold. By 1871 the gold equivalent of their market price was nearly two points above par,—an increase in capital value to the original subscribers of approximately 16 per cent. In addition to this substantial increase in the value of their invested capital, the holders of these bonds had been regularly receiving their interest in coin during a period when currency fluctuations caused the actual rate of interest to amount to much more than the nominal 6 per cent. During certain periods the actual value of the interest received was at least double the nominal rate.



*Based on New York Exchange quotations from contemporary issues of the *Commercial and Financial Chronicle.*

Loan of March 3, 1864.—Because these bonds were payable in ten years and due in forty they were popularly known as "Ten-Forties." They drew interest at 5 per cent payable in coin. On October 31, 1865, approximately 173 millions of this issue were outstanding. These bonds were marketed at from 100 to 107 currency. The currency dollar during this period averaged in value 49.2 gold. Thus the investors who paid 107 currency for this issue gave less than 53 gold for a security that by the end of the war had risen approximately ten points (to 62.2) in value.

By 1872 "Ten-Forties" were quoted on the exchange at the equivalent of 100 gold. The high point was reached in 1878 when the issue was selling on the New York Exchange for 108 gold—over twice the price paid by the original subscribers. In addition to having their capital doubled the original purchasers of "Ten-Forties" were receiving interest in coin amounting to over 9 per cent on their investment.

These facts make it clear that those who subscribed for obligations issued by the United States government to finance the Civil War secured an investment that gave very high returns.

While the nominal rate of interest on all Civil War issues was high, the real return was still higher because of interest payment in coin on obligations purchased with depreciated currency. In addition, holders of nearly all Civil War issues benefited by substantial increases in capital investment through purchasing the government's obligations with more or less depreciated currency and later having them redeemed in gold. Between 1869 and 1873 the government used its surplus revenue to retire its unmatured bonds by purchase at the market price in currency. These securities had so improved in the public estimation that the difference between what the government had originally received for them and what it was required to pay to get them back was, in every instance, a very substantial amount. The average price paid for United States bonds by the Treasury Department during this period was 112.27 currency.

U. S. 5's 10–40's
MARKET PRICE IN GOLD EQUIVALENT ON OR ABOUT JULY 1

Year	*Market Price**
1865	62.2
1866	69.
1867	72.9
1868	76.6
1869	81.2
1870	94.8
1871	99.3
1872	100.
1873	100.5
1874	102.5
1875	103.5
1876	106.7
1877	107.7
1878	108.1

* Based on New York Exchange quotations from contemporary issues of the *Commercial and Financial Chronicle.*

WAR LOANS OF 1812

In 1830 the House Ways and Means Committee estimated that for over 80 million dollars worth of government obligations issued from 1812 to 1816, the Treasury received but 34 millions specie value. Many of the issues were marketed at large discounts—the first departure from the usual American policy of issues at par. The specie value of the returns from loans was still further reduced by the acceptance of depreciated state bank notes in payment. The difficulty in raising money was to a large extent due to the unpopularity of the war in New England and the Eastern States. These centers of capital furnished only an insignificant share of the funds raised.

MARKET QUOTATIONS 6 PER CENT LOAN WAR OF 1812
(ON OR ABOUT JULY 1)

Year	*Market Price**
1815	92½
1816	89
1817	103
1818	103
1819	101½
1820	106½
1821	109⅝
1822	104¼
1823	102⅜
1824	105⅞
1825	101⅛
1826	102⅝

* Prices on the New York Exchange from contemporary issues of the *New York Shipping and Commercial List.* Only consolidated quotations on War Loan 6's are available up to 1821. Prices for the loans of 1813 and of 1814 were quoted separately, beginning with 1821. Since these prices vary less than a point, the average has been used for the sake of simplifying the table.

16 Million Loan of 1813.—When this loan was marketed public credit was falling rapidly and it became necessary to accept bids below par. In order to raise the full amount the subscription books were opened a second time and new conditions, imposed by subscribers, accepted. This issue matured in

thirteen years, bore interest at 6 per cent, and sold at about 88 currency.

6 per cent Loan of 1814.—In borrowing the first installment of this 25 million dollar loan the government was forced to agree that if more favorable terms were extended to later subscribers the more favorable conditions should be retroactive as regards purchasers of the first installments. Under these circumstances the bonds were marketed at from 12 to 20 per cent discount and some payments accepted in state bank notes worth 65 specie.

It will be noted that these securities, which were issued at from 80 to 88, were selling at par within four years and at a considerable premium thereafter. The high point was reached in 1821 when the average price for the year on the New York Exchange was over 109. This was a nominal rise of some 28 points, but the real increase in the value of the investment was, in many cases, approximately 100 per cent. This, of course, was due to the fact that payment was accepted in depreciated currency and the securities redeemed when the monetary situation had improved. Much of the debt, in fact, was redeemed at more than par. Surplus revenue accumulated after the war and as no provision had been made for redemption before maturity the Treasury Department found it necessary to pay full market price in order to retire these obligations which were drawing a much higher rate of interest than was justified by the post-war condition of the national credit.

MEXICAN WAR BONDS

The prosecution of this war created a net debt of 49 million dollars. Due to the strong financial condition of the country, the excellent credit of the nation, and the comparatively small amount of money required, all of the loans were placed at par or above. The aggregate premium on all the loans amounted to approximately a half million dollars. Nearly all offerings were oversubscribed. Eighteen millions were asked for in one case and nearly 58 millions were subscribed. The following table shows that the post-war market value of these bonds was always high, up to the outbreak of the Civil War when they met the temporary fate of all securities during that period.

U. S. 6's of 1867.—These bonds were due in twenty years and paid 6 per cent interest. They were marketed in 1847 at prices ranging from 101 to 102.

U. S. 6's OF 1867

MARKET QUOTATIONS ON OR ABOUT JULY 1 *

Year	*Price*
1849	116⅞
1850	115
1851	116½
1852	118
1853	121¼
1854	120
1855	119¾
1856	117
1857	109
1858	114¾
1859	108

* New York Exchange quotations from contemporary issues of the *New York Shipping and Commercial List.*

It will be noted that by 1853 the U. S. 6's of 1867 had reached a high point of 121¼.

Other Mexican War Bonds.—In 1848 16 millions of another 6 per cent loan were sold at 103 to 104. These bonds were known as the U. S. 6's of 1868.

Their post-war market value ran very closely with that of the U. S. 6's of 1867 as given in the above table.

In 1846 about 5 millions of ten-year 6 per cent bonds were marketed at par.

These securities were quoted at between 106 and 107 until they approached maturity. Comparison with the twenty-year 6's described above shows that the longer term of the twenty-year bonds gave them a consistent advantage on the market of approximately ten points over this ten-year loan of otherwise similar securities.

In spite of the fact that all Mexican War Loans sold above par they almost immediately went still higher on the market—indicating a strong demand for these securities at prices that gave a yield much smaller than the nominal rate of 6 per cent.

SPANISH-AMERICAN WAR BONDS

U. S. 3's 10-20's (1918)
(COUPON)
LOW MARKET PRICE FOR THE YEAR*

Year	*Price*
1898	104
1899	106¾
1900	108¾
1901	108¼
1902	105¾
1903	106½
1904	104½
1905	102¾
1906	102⅝
1907	100¼
1908	100¾
1909	100¾
1910	101¼
1911	101¾
1912	101½
1913	101¾
1914	100
1915	100½
1916	100
1917	98⅝

* New York Exchange quotations from contemporary issues of the *Commercial and Financial Chronicle.*

To finance the war with Spain the government in 1898 asked for subscriptions at par for an issue of 200 millions of 3 per cent bonds—interest and principal payable in coin. These bonds were redeemable in ten years and due in twenty years. The issue was seven times oversubscribed. The annual market price of this issue is shown by the preceding table:

A considerable enhancement of the market value of this issue was due to the fact that they were available to secure national bank note circulation. In 1900 over 132 millions of this issue were refunded into the 2's of 1830 (consols), also available to secure circulation and with a longer time to run.

SUMMARY AND CONCLUSIONS

War Bonds Profitable Investments.—The above analysis makes it clear that, without exception, the war bonds of the United States government have been, from our earliest history, very profitable investments. The post-war market price has in every instance exceeded the price received by the government at the time of issue. Interest always has been promptly paid at the rate promised and in the medium specified. During the War of 1812 and the Civil War, when currency depreciation existed, the variations in the relative value of gold and currency at all times operated to the substantial advantage of subscribers to government loans. Civil War bonds originally paid for in depreciated paper and technically payable in "lawful money" were redeemed in coin or its equivalent.

How far the analogy between the post-war market value of previous war loans and Liberty Loans can be carried depends upon a number of factors which demand very careful consideration. For obvious reasons even the strongest nations are invariably required to give very good bargains in order to raise large sums of money during war times. In marketing Liberty Bonds the Treasury Department

could perhaps drive a harder bargain than it could during previous war periods, because of the existence of an established national credit, because of the greater possibility of an appeal to patriotism, and because of the existence of highly developed machinery for advertising and distribution. On the other hand, it was handicapped by the absolute and comparative hugeness of the amounts needed, the lack of a foreign market, and the high earning power of capital in industry. The credit of our government undoubtedly was better in the eyes of its citizens in 1917 than at the beginning of any other war. Our past record in dealing with purchasers of government obligations and our increased financial and political strength had operated to perfect confidence in the financial undertakings of the nation. During previous war periods the interest rates and other conditions were necessarily more favorable to bond subscribers than would have been necessary if more efficient means of reaching the mass of citizens had existed.

During the Civil War Jay Cooke demonstrated, on a small scale, the great value of a comprehensive system of advertising and distributing machinery in government bond selling. Political considerations prevented the Treasury Department from making the fullest possible use of his ideas and organization at that time.

The establishment of the National Banking System in 1863 was a somewhat belated attempt to improve the situation in this respect. Each great war in which this government has been engaged has called for much greater sums of money than preceding conflicts. In every instance the unexampled amounts of money required have appalled the people and caused them to doubt the nation's ability to stand the financial strain.

In 1862 the United States government was having considerable difficulty in raising what at that time seemed like huge sums necessary to prosecute the Civil War. During this period the *London Economist* expressed its opinion of our financial future in these words:

> It is utterly out of the question, in our judgment, that the Americans can obtain, either at home or in Europe, anything like the extravagant sums they are asking—for Europe will not lend them; America cannot.

The *Times* expressed conservative British opinion as follows:

> No pressure that has ever threatened is equal to that that now hangs over the United States, and it may safely be said that if in future generations they faithfully meet their liabilities, they will fairly earn a fame which will shine throughout the world.

In spite of these weighty and honest opinions to the contrary we did succeed in financing the war for three more years until victory was won, and within five years after the end of the war the United States had either paid off or refunded on better terms all its obligations which were redeemable at that time.

As the people of Civil War days were appalled by a debt which after five years of fighting amounted to less than three billions, even so was there an element of doubt and distrust among the plain people of this country when in 1917 we began to figure war costs in units of ten, fifteen and even twenty billions per year. As is usual in times of stress and emergency, national financial strength was underestimated. This feeling naturally increased to some extent the difficulties of borrowing money, and the necessity for offering especially favorable terms to lenders.

It is probably true that the demand for capital in industry was stronger during the World War than during any previous war. The proportionate amount of material supplies of all kinds required was much greater than during any previous conflict and with practically the entire world at war the effective demand for products of industry was much greater than at any other period of the world's history. This industrial competition for funds would necessarily be reflected in the terms of loans offered by the government.

Post-War Value.—All these things would indicate that the terms which would secure takers for government securities during the war would be considered very favorable indeed in the post-war period. During all previous war periods the United States, as well as other great nations, has found it necessary to borrow money on terms which soon after the war were reflected in a high market price for their wartime issues. The above brief analysis of the conditions surrounding our national borrowings to finance the latest war make it seem probable that history will repeat itself in this respect.

In 1890 the average interest rate being paid on United States bonds was 4.08 per cent. By 1915 the average rate of interest had dropped to 2.37 per cent. There are two main reasons that make it seem probable that Liberty Bonds will never attain a market price which will reduce their yield as low as that paid in 1915 by the long-time obligations of our government. First, the terms of the "old" issues are, with the exception of the rate of interest, in several respects more favorable to investors than are the conditions attached to the various issues of Liberty Bonds; second, it is possible that post-war conditions of the security market will be somewhat less favorable to government bonds than was the pre-war market. The "old" bonds have the advantage of complete tax exemption while the Liberties are subject to certain forms of national taxes if held in large blocks. The Liberty Bonds do not bear the "circulation" privilege which has given the somewhat artificial value to many earlier issues of United States bonds. In this connection it is interesting to note that an issue of 50 millions of 3 per cent Panama Canal bonds, which were not available to secure bank note circulation, was marketed in 1911 at an average price of 102.58. With the decline in importance of National Bank Note circulation it is probable that the "circulation" privilege will also decrease in importance and value.

Supply and demand effects the price of investment securities just as it controls the price of the more concrete commodities. The vast increase in the supply of investment securities, because of the huge government issues, has undoubtedly had the effect of increasing the supply of this commodity beyond the effective demand. This results in the presence of large amounts of so-called "undigested" securities. The period required for this investment demand to catch up with the present oversupply will probably be lengthened by excessive industrial competition for funds demanded by the great amount of after-the-war industrial and commercial readjustment necessary. While these conditions, and perhaps some others of lesser importance, make it seem unlikely that Liberties will completely attain the favor of the "old" issues of government securities, it should be pointed out that Liberty Bonds, because of

their higher interest rate may sell at a very substantial premium indeed, before their yield is reduced to that paid by the older issues in 1915 and previously.

A very real, if seldom realized source of profit in the purchase of government bonds, may well be expected through the operation of buying with inflated currency and taking payment of interest and capital after this war-time inflation has decreased. It is a commonly appreciated fact that the dollar today will purchase only approximately half as much in goods and service as it would in 1913–14. This, of course, means that the 1919 dollar is worth in reality only about 50 per cent as much as the 1913–14 dollar. If we exchange these "cheap" dollars for government securities now, and hold them until our currency has resumed its former value in exchange for goods, it is clear that our capital investment will be approximately doubled in real value. The possibility of profit from this source is, of course, contingent upon post-war deflation of the currency and a consequent increase of the purchasing power of the dollar. While the question of deflation is still a subject for argument we believe that it is safe to state that the weight of intelligent opinion holds that while the purchasing power of the dollar may never return to the before-the-war basis, nevertheless, we may expect a substantial increase in the value of our currency in its relation to other commodities as industrial conditions approach to normal. The greater this deflation the greater will be the increase in the real value of the capital now invested in long-time securities.

Using as a guide, the experience of the past, modified by the changed-conditions of the present, it would appear very probable that the obligations issued by the United States to finance the World War will be sufficiently attractive to cause them to sell at a substantial premium as soon as the security market is entirely adjusted to a peace-time basis. This fact combined with the probability of an increase in the purchasing power of our currency, point to a yield considerably in excess of the nominal rate of interest to those who now hold United States bonds of the recent issues.

The Development of Thrift Facilities

By Milton Harrison
Executive Manager, Savings Banks Association of the State of New York

Money Saving an Index to Thrift

BETTER buying, greater system in private affairs and the quality of doing without what one may desire are elements manifesting personal thrift. However, consistent saving of money must be the result of the practice of such thrift elements. The evidence of thrift is independence; independence is secured through the saving of money, but the quality of that independence must not be disregarded. To continuously stint and live only on the bare necessities of life, thereby maintaining a low standard of living, may permit a person to accumulate an amount of capital which will be sufficent to assure independence, but the quality of that independence will be exceedingly poor. Life is a tissue of habits, and if the tissue is miserly it cannot be changed at a time when the life is the tissue, and thus the means of independence can only be enjoyed by relatives, after death. High quality independence, therefore, presupposes the maintenance of a decent standard of living throughout the period of accumulation, and money saving must be consistent in order to reach real happiness during the unproductive days of life.

Facilities for Money Saving

Since saving of money in the way above described is the Alpha and Omega of thrift, the establishment of adequate facilities as an aid thereto is of first importance. During the past five years the establishment of proper and adequate facilities for the saving of money has been advancing tremendously. As a result, more of the present generation of Americans will enjoy a happier old age than those of preceding generations.

People doubtless are saving more consistently today than they ever have before. The propaganda of the Treasury Department in the encouragement of thrift has had a marked influence upon the American people. It has brought the lesson of saving to the masses of the people. The war may have been the object and the immediate reason, but the fact remains that people generally know the meaning of money saving. The present may witness undue extravagance but every person who spends, no matter how wildly the spending may be, feels a restraining force due to the lessons of thrift taught in the heat of war.

There are twice as many banks today as there were five years ago, and there are 28,000 of them in the nation, that are urging the people to save and conserve through the establishment of savings departments. It is admitted that such business is profitable to the bank, but nevertheless, money saving facilities are thereby increased. As a general principle, the adult who knows the lesson of thrift will not save unless the facilities exist directly at hand. The industrial worker will not go four blocks away from the beaten path of the plant to his home to deposit a small sum from his weekly wage, unless thrift is an inborn habit or a habit acquired at an early age or to save in order to pay an obligation that must be met.

Thus, the banks of the country, recognizing this necessity, are expanding their facilities into industrial plants but free from the influence of employers. Building or Savings and Loan Associations are being established in factories and mills. Government savings stamps and certificates are being made conveniently available to industrial workers. Plans are being made and carried out to sell railroad and municipal bonds in small denominations, as well as participation certificates secured by high-grade bonds. These bonds may be sold not alone through banks, but in drug stores and other local responsible retail stores.

Savings banks are planning to install concrete safety deposit vaults which will contain boxes of sufficient size to hold a considerable number of bonds and private papers. These will be made available to the people of small means at a very nominal sum. There is one savings bank in the Middle-west which has already contracted for the installation of a concrete vault to contain 100,000 of such boxes, to be rented as low as $1 per year. They expect to operate the vault at a profit. Thus, savings facilities are developing satisfactorily.

SMALL SAVINGS AND CAPITAL

The savings account is simply the nurturing force in the accumulation of capital by the person of relatively small means. Its primary purpose is to promote the systematic saving of small amounts. When the account reaches several thousand dollars, it ceases to be a desirable savings account. The law of the State of New York limits the balance of a savings account in the name of any one person to $3,000. The Connecticut law does not permit a greater aggregate deposit by one person within one year or more than $1,000, and $2,000 is the limit of a savings account in Massachusetts, while New Jersey law limits the account to $10,000. The average savings bank would rather go to the expense of caring for ten accounts of $100 each than to carry one account of $1,000. The deposit of small amounts is preferred to the deposit of large amounts. This is only the result of following the fundamental principle of the savings account as the nurturing force in the accumulation of capital.

INDEPENDENCE THROUGH THRIFT

In the days before the war a few thousand dollars seemed adequate to care for a person during his unproductive days; this was because the principal was used and the interest or income was disregarded. He was comfortable while the money lasted and a pauper or dependent when the principal was exhausted. Such kind of people continued to live in the city where their savings went solely to living expenses and thus $3,000 meant meals for a few years; whereas, if the sum were invested in a small farm, and there are plenty of them available, it would mean happiness and contentment during the remainder of life. But a very small proportion of the people who have lived all their lives in a city would be content to vegetate in a village even during old age. What then is the solution of the problem? Life insurance has solved the problem of the care of dependents in the event of the death of the producer of the family income, but the care of people grown old or incapacitated must be left to the accumulation of capital from which some income may be derived, if the independence of the individual is to be maintained. It is

argued that when parents have grown old, it is the duty of the children to care for them, but this does not assure the independence of the parents and only creates a deterrent force in the progress of the children in building up their own lives. This may be counted as a selfish attitude to take but nevertheless each person is responsible for his own life and it is only one short span, wherein a person must begin early to accumulate capital for success in life and for independence in old age. The principal theme of thrift is independence.

Investment of Small Savings

Adequate accumulation of capital requires facilities which will absorb the capital accumulated and will return a fair rate of income. The future will have plenty of opportunity for the absorption of capital. The world will look to America for the finance of foreign governments, of foreign railroads and cities. On the other hand, the demands for capital for domestic finance will tremendously increase. It will not be long before most banks will be selling the bonds for such finance, in small denominations, over their counters on the partial payment plan. But the effort to urge the people to buy will have to be continuous and strong in order to be effective. Liberty and Victory Bond and War Savings Stamp drives may have made America a nation of bond buyers, but there is some question as to whether such drives have made America a nation of bondholders. The effort made to sell war bonds could not be paralleled in times of peace in the sale of either government bonds or other high grade issues. The people will have to be met with cold facts; only their selfish interests can be appealed to. To produce results propagandists of saving must begin with the payment of private debts by the individual and then urge him to save, for his assets must be greater than his liabilities if there is to be any real surplus or saving.

Where Saving Should Begin

The facilities for saving must begin in the schoolhouse. There is no more effective way of teaching thrift than through the school savings bank established and operated by school children. Every school in America should install such a bank. Not a slot machine, but a real bank, with tellers, bookkeepers and even officers, all of whom should be school children. The teacher may exercise a supervision in the operation of the bank, but the children should be allowed to do the work.

The School Savings Bank.—New York City Schools have been most successful in this respect. So also have the schools of Detroit, Rochester, Minneapolis, St. Paul, Chicago, Kansas City and San Francisco. The children systematically save until they have an amount sufficient to open an account in the local bank or to buy a Government Savings Stamp. Saving money easily becomes a habit with the ordinary child and it continues throughout his life. There is no school lesson the child could learn that will produce better results than that of depositing his pennies and nickels—real money—in the school savings bank. He learns the value of money, he learns fundamental economics and it stays with him; it makes him a better student, a better business or professional man; it gives him an appreciation of the value of individual independence, which, if it were learned by all the people, would advance our civilization a thousand years. The establishment

of school savings banks is eminently important in the further development of thrift facilities.

Household Economics Departments.—Savings banks are considering increasing thrift in the home by the establishment of household economics departments. Approximately 65 per cent of savings depositors in the savings banks are women. Through advice given to such depositors by women employed by the banks who have been especially trained in household economics, homes are being financially reformed and adjusted so as to permit families to live within their incomes and thereby produce a saving in money. The correct spending of money to maintain a home requires considerable intelligence, an intelligence which the housewife should have acquired at public school, instead of some non-essential learning. The household economics department of a savings bank is still in an experimental state but it will not be many years before most savings banks will be making every effort through such means to better the condition of the home, by urging the housewife to use the budget system, by urging Boards of Education to teach rudimentary principles of better buying and of the value of independence in old age.

In conclusion, the possibilities of the thrifty people of the United States are unlimited. Every safe and sound facility for the accumulation of capital must be put into operation. It is an Herculean task, but America can do it.

Coöperative Credit Institutions in the United States

By James B. Morman
Assistant Secretary, Federal Farm Loan Board

WEALTH begins with thrift and increases as saving is practiced. In the whole organic kingdom man is the only being which stores up the fruits of labor for future use. Thrift, or saving, is at the foundation of civilization. Yea, more, it is the framework of property and the source of economic and social relations. To encourage thrift, therefore, is to promote social progress by increasing the supply of stored-up wealth for use in our democratic system of national economy.

Production of Wealth

In striving to produce wealth man may either work alone or in coöperation with others. The long experience of the race, however, has demonstrated that more wealth is produced by division of labor in group production than by an equal number of individuals working separately. But it took a long time for mankind to learn this truth.

Competition—Monopoly

During much of our past history, the organization of modern business has rested on competition. What the struggle for existence is to the natural world, the law of competition is to the economic world. To eliminate competition in any particular industry is to create monopoly, a most dangerous power, the economics of which are not established on the law of supply and demand, but on the arbitrary will of the directors of the monopolistic industry. Against this phase of social economy, the whole civilized world is now in open revolt, for to it is attributed in no small degree the great problem of the high and rising cost of living which strikes at the very foundations of national welfare and the health and happiness of the people.

Coöperation Through Division of Labor

But between competition and monopoly stands coöperation. The basis on which it rests is that of "mutual help for self-help." Its purpose is not to destroy, but to build up by combining the savings of many into a collective force for service. Fundamentally, therefore, coöperation rests on the economic basis of division of labor which increases wealth production. Its origin in modern history is very simple, beginning, it is said, in the custom of the Swiss peasantry of borrowing milk from one another to secure a sufficient quantity to make a cheese. This led to the pooling of the milk at a common center, the alternate manufacture of the cheese by the different peasants, and the final division of the products according to the quantity of milk furnished by each member of the coöperating group. The mutual help thus rendered was found not only to save the waste of individual small supplies of milk which taken alone would not be sufficient for the making of cheese, but to bring greater returns at less loss and less labor than an individual could expect or secure if producing milk and making cheese alone.

Society as constituted today is divided into "rural" and "urban" population. The rural workers are engaged in the production of wealth from the soil to provide food and the raw materials of many textile manufactures. On the other hand the workers in towns and cities, grouped as "urban," are largely engaged in industrial pursuits which work up the raw materials produced on the farms into finished products. Here, then, we have the mutual relations of both groups of our population clearly indicated showing the interdependence of one class of the people on another class which results in benefits to both. Taken in its broadest aspects, civilization is progressive coöperation in the production and distribution of those things which make for the health, the wealth, and the happiness of all the people.

THRIFT THROUGH COÖPERATIVE CREDIT INSTITUTIONS

The four primary needs of mankind are food, fuel, clothing and shelter. The masses of humanity born into the world must earn these things by their own labor. With growth in population and civilization, a house, which provides shelter, becomes costly and the average worker would be unable to occupy a home which he could call his own if some method of coöperation did not exist which enables him to buy a place and pay for it out of his savings. Such a system, however, has been devised and is called "coöperative credit."

The institutions primarily supplying this form of credit are known as Building and Loan Associations. These are mentioned first because they have been in existence longer than those institutions which provide credit facilities for rural workers. In either case the need of credit and credit institutions is based on the same fundamental principle, namely, the mutual aid furnished through coöperative effort as a means of self-help to every individual member of the organization.

In view of the financial and economic problems now confronting our country, probably no theme is more timely than that of pointing out how coöperative credit institutions encourage thrift among all classes of people in the United States.

Building and Loan Associations[1]

In some respects the building and loan associations are the greatest coöperative financial system in the world. They began in 1831, and from that time to the present they have had a steady growth through private enterprise and mutual self-help. As generally understood a building and loan association is an incorporated institution with a capital which may be increased or decreased by the issue or cancellation of shares, or by payment or withdrawal of payment on shares. The original source of this capital is the savings of members, and the purpose is to make loans to members for building or acquiring homes. The owning of homes being an encouragement to thrift, building and loan associations are exempt from taxation on the ground that their purpose is considered a benevolent one and that it promotes the welfare of communities in which they are located.

[1] For more detailed accounts see Senate Doc. 396, 64th Cong., 1st Sess., pp. 24–32; Secretary's Annual Report, United States League of Local Building and Loan Associations (Cincinnati) for 1918.

In accordance with coöperative principles, these associations are administered by their members at a mere nominal cost. They have a limited territory, the membership is not large, and the subscribers to shares are mostly people of only moderate means. In carrying out the principles of building and loan associations the aim is to encourage coöperation in local community life. For this reason each association should be self-sustaining and with a membership only large enough for all to attend meetings regularly and watch over its affairs.

Funds are provided by accepting the savings of members and investors. Each association issues and sells shares which are mainly of two kinds —installment shares and investment shares.

On *installment* shares the subscriber makes his payments at stated intervals. These are the ones in general use for loan transactions. A borrower subscribes for shares in an amount equal to his loan, a first mortgage is given on the property on which the loan is made, and the shares are pledged to the association as additional security for the loan. Payments made by members are applied on a share until paid off, and each share is credited with its portion of the profits. Borrowers in reality, therefore, receive interest to a limited extent on their own debts, a result attributed entirely to the principle of coöperative credit. At maturity a borrower's shares are canceled,—that is, when his payments equal his debts; and his mortgage is canceled with his pledged shares. The latter can at no time be withdrawn during the period of the loan.

The installment share was originally the only kind issued and created an obligation to keep up regular payments until maturity. In effect, therefore, it requires self-imposed compulsory thrift or saving which inculcates the habits of frugality and economy on the part of borrowers. In this day of extravagance, waste and high living, the habits inculcated through building and loan associations are worthy of being given broad publicity in the interests of our national welfare.

On *investment* shares the subscriber may make one payment in full or he may make several partial payments at stated periods to suit his convenience, and he may subscribe for as few or as many shares as he pleases. At maturity the shares are canceled, and in the case of a nonborrowing member the face value of his shares is paid to him in cash. Pledged shares by borrowers cannot be withdrawn until the loan has been paid, but the credits on investment or "free" shares may be withdrawn ordinarily on sixty days' notice.

Since the only credit instruments of a pure form of building and loan association are its shares, loans can only be made as fast as savings accumulate. This difficulty is inherent in the coöperative method of providing credit, but it is well understood by the members who realize that it cannot be changed without destroying the coöperative feature. As a matter of fact very serious consequences have more than once followed when building and loan associations deviated from the straight and narrow path of coöperative credit. The most dangerous departure from these principles was the right accorded in some states to use the credit as well as the cash of members for

the issue of bonds or other debt obligations. In the last quarter of the nineteenth century there were many failures of these associations due largely to the fact that the laws did not always require adequate supervision, that large associations were formed by persons who had no correct knowledge of the limitations of coöperation, and that the average officials were unfamiliar with intricate financial methods.

Evidently, then, a building and loan association when it conforms to its original concept, is distinctively a thrift society, whether considered from the standpoint of the borrower or the investor. The compulsory periodical saving which it requires of members gives it the character of a thrift institution to a greater extent than is possessed by a mutual savings bank or similar institution, and the safeguards thrown around the investment of its funds make it one of the sanest and safest institutions for home building by persons of moderate income. Its methods are strictly coöperative, the only creditors are its own members, and it is managed and financed exclusively by them.

That building and loan associations have encouraged thrift, both before and during the World War, may be shown by the following figures: There were in the United States in 1914 no less than 6,429 associations having a membership of 2,836,433 and a share capital of $1,248,479,139. This means that there was one member for every 13.45 persons engaged in gainful occupations, for every 7.14 census families, or for every 2.55 urban dwellings. Financially considered, it means, $1.00 of assets for every $13.91 of individual deposits in all banks in the United States. That the World War did not diminish thrift but rather encouraged it may be shown by the following figures for December 31, 1918, as compared with those for 1914: Number of associations 7,484; membership 4,011,401; and assets aggregating $1,898,344,346. Well may it be said of this kind of coöperative credit institution: "By their fruits ye shall know them."

A Proposed Federal Home Building Plan.[2]

The well-recognized merits of building and loan associations have led to a proposal to establish a federal system. On July 15, 1919, Senator W. M. Calder, of New York, introduced "a bill among the objects of which are to encourage home ownership and to stimulate the buying and building of homes"; and "to create a standard form of investment based on building-association mortgages."

This bill was referred to the Senate Committee on Banking and Currency, but no report had been made thereon up to October 20. I shall content myself, therefore, with presenting the merest outline of this proposed plan for encouraging home building, because of the changes which are likely to occur when a measure of this kind passes through the troubled waters of legislative criticism.

In its general outlines this bill follows closely the provisions of the Federal Farm Loan Act, the coöperative feature of which is described later in this paper. It provides for dividing the continental United States into eleven federal building loan bank districts and the establishment of a bank in each district which shall make loans to "building associations"

[2] Senate Bill 2492, 66th Cong., 1st Session.

for the purpose of encouraging home building by wage-earners and others. The term "building association," however, is defined broadly to include "all duly incorporated domestic building and loan associations, savings and loan associations, coöperative banks, homestead aid, or other kindred incorporated associations organized and conducted exclusively for the mutual benefit of their members and doing what is generally known as a coöperative building and loan association business," and which are under state supervision.

The establishment of a federal building loan bank is provided for in the following manner: Whenever ten or more building associations located within a district, with aggregate assets of not less than $5,000,000, shall associate themselves together for the purpose for which they are organized, they may establish a federal building loan bank in their district with a paid-in capital of not less than $100,000 in shares of $1,000 each. This capital may be loaned to building associations on first mortgages on dwelling houses, no other security being acceptable, said mortgages being deposited with a registrar as security for an issue of bonds in equal amount.

Bonds may be issued up to twenty times the capital of a federal building loan bank and funds may be advanced to any member association up to twenty times the amount of the capital stock owned by such member. The rate of interest on bonds, which are tax-exempt, cannot exceed 4½ per cent, and the compensation to the bank for services may not exceed ½ per cent. The interest rate on funds advanced to the associations, therefore, cannot exceed 5 per cent. After paying expenses and providing for a reserve account, the banks may declare dividends to shareholders of the whole or part of its net earnings and carried as undivided profits.

Here, then, we have a plan for the coöperation of coöperatives in which building and loan associations within a given district may pool their credit for mutual benefit. The scheme is largely patterned after the Land Bank of the state of New York, which, however, has made little or no progress since 1914. Many objections have been raised against the New York plan of financing the savings and loan associations of that state; and whether or not these difficulties could be overcome if a similar institution were established under federal fostering and supervision is problematical. Inasmuch as the federal plan for establishing coöperative credit institutions is in an embryonic condition, the problems connected therewith may be left for solution should that time ever come.

Credit Unions—Urban and Rural

Turning from the strictly urban aspect of coöperative credit, as represented by building and loan associations, let us now consider types of institutions which, beginning as urban, have become semi-rural or strictly rural in character. These institutions are called "people's banks" in Canada and "credit unions" in the United States.[3]

While the *people's banks* were originally organized in Canada to lend small sums to members on personal

[3] For a more detailed account of these coöperative credit institutions, see Morman's *The Principles of Rural Credits*, pp. 263–275.

security in the towns and cities of Quebec, the percentage of their membership is now so overwhelmingly composed of farmers,—90 per cent being farmers and 10 per cent wage-earners,—that the name could well be changed to "rural banks." In passing over into the United States, the modification brought about in their character led to the adoption of the name of *credit unions*, the aim of which was to make short-time loans to members on chattels. That both types of credit institution were intended to promote thrift may be shown by a brief account of their origin and development.

The people's banks in Canada owe their origin and success to the untiring energy of Alphonse Desjardins. The first bank was established at Levis, Quebec, beginning operations in January, 1901. From Quebec these banks spread to Ontario and have even made their way into some of the New England states.

The capital of each bank is raised by selling shares at $5 each and by receiving deposits, on which savings-bank interest rates are paid. Stockholders are free from liability—a departure from the European system. Deposits can be withdrawn at will, or by giving thirty days' notice at the utmost. Shares of stock may be paid for by small installments. Every applicant for membership has to be approved by a council of administration, the by-laws requiring that the applicant must be honest, punctual in his payments, sober, of good habits, and industrious. Each bank is carried on by three committees. The council of administration controls the admission to membership, supervises the transfer or withdrawal of stock, selects the manager who alone draws a salary, and overlooks the management of the business. The credit committee determines the amount of credit each member can receive and passes on all applications for loans. The council of supervision audits the accounts and has general supervision over the bank. A reserve fund is built up by means of 20 per cent of each year's profits and a membership fee of 10 cents; and the reserve fund is protected by a providence fund, raised by taking 10 per cent of the annual profits, which is designed to meet any calls that threaten the bank's stability. Loans usually run between $10 and $150, although larger loans are sometimes made, the rate of interest being about 6 per cent. These institutions do business within a limited area where everyone is known to all the shareholders, and where every shareholder is interested in the repayment of loans.

These are the general principles which regulate the activities of the coöperative personal credit institutions in Canada and the United States. They have been eminently successful in the Dominion where more than 150 have been organized since 1906 with more than 66,000 members; and, notwithstanding they are small institutions making small loans, the business transacted amounts to nearly $9,000,000 a year. As a means of encouraging thrift among small farmers and poorer-paid classes of wage-earners, the Desjardins' type of semi-rural coöperative bank, in which farmer and wage-earner can unite their savings to lend to others of their own class, affords a good opportunity for supplying cheap money for short-time loans on personal or

chattel security. But their success has undoubtedly been due to the real coöperative spirit existing among the members.[4]

Turning from Canada to the United States we find that credit unions have been organized as separate institutions in both city and country. In the states of Massachusetts and New York a considerable number have been organized in various cities among the working-classes, Massachusetts alone reporting 50 urban credit unions in 1916.

Rural Credit Unions.—During the past few years, however, more attention has been given to organizing credit unions among farmers, these rural credit unions now serving as supplemental institutions to the federal farm loan system which provides farm mortgage loans only, the coöperative feature of which is outlined and discussed in the following section. The original plan of rural credits legislation in the United States included both short-time (personal) and long-time (mortgage) credit, but no legislation on personal rural credit has ever been seriously considered in Congress. To a very limited extent, therefore, the organization of credit unions among farmers has occupied this neglected field of personal or short-time credit. The following are the principal data on rural credit unions as reported in 1916:

State	Number of unions	Members	Outstanding loans
Massachusetts...	1	44	$1,685.00
Connecticut.....	5	127	7,865.25
New York.....	8	261	10,700.45
New Jersey.....	5	132	6,984.80
North Carolina..	9	322	4,031.20
			$31,266.70

The security given by members for loans in rural credit unions is either chattel mortgage or endorsement, and the prevailing rate of interest is 6 per cent. In the latter case a farmer in order to borrow money must know two or three neighbors who are willing to sign a note with him. But both the borrower and his indorsers must be known to the credit committee of the union or a loan will not be granted. Through living close together they learn the habits of thrift, industry and honesty of borrower and indorsers.

The greatest number of rural credit unions have been organized in North Carolina, the State Department of Agriculture supervising the work. The credit unions among farmers in the other states mentioned above have all been organized with the aid of the Jewish Agricultural and Industrial Aid Society.

The effect of the war on the development of rural credit unions has not resulted in increasing their number except in North Carolina, where the state has taken an active interest in the organization and success of these institutions. This is not to be interpreted, however, to mean that the war has been detrimental to the encouragement of thrift among farmers. It is more than likely that the increased prosperity during the past three years has enabled those farmers

[4] In a letter to the writer under date of October 11, 1919, Mr. Desjardins says: "With reference to the development of thrift as one of the effects of the World War, I can assure you that the movement has greatly increased, so much so that since 1916 the total amount deposited in our credit unions has more than doubled, although the number of credit unions has not materially increased during that time."

who were formerly members of credit unions to pay off their loans and thereby were automatically released from membership. This is likely to be the reason for the status of credit unions among farmers August 31, 1919, as reported by the United States Department of Agriculture, which is summarized as follows:

> According to the latest report of the Jewish Agricultural and Industrial Aid Society, several of the rural credit unions in New York have been obliged to wind up their affairs. In place of the eight credit unions among farmers reported in 1916, only three now exist in that state, and no mention is made regarding the present status of the credit unions among Jewish farmers in the states of Connecticut and Massachusetts. On the other hand the report from the superintendent of rural credit unions in North Carolina shows that they then numbered 28, with a total membership of 980, and with outstanding loans aggregating $38,164. This would seem to indicate that North Carolina is the only state where any considerable progress has been made in the development of credit unions among farmers.

Summing up the situation as to both kinds of credit unions, they are known to be excellent local savings banks, stimulating thrift, bringing out hoarded money, and conferring on local communities the benefits of properly and safely invested money. However small a village or a farming community may be, it can organize a credit union, give to its inhabitants the benefits of banking, and extend the practice of thrift to every home in the locality. Such a credit union borrows from its members by accepting savings deposits and lends to other members for productive purposes. The fundamental principle is that thrift precedes savings and credit. The general tendency of these simple institutions is to develop individual capacity for a higher personal and public life. There is every reason, therefore, for encouraging the organization of credit unions in every well-defined community in the United States.

Federal Coöperative Farm Mortgage Credit

The last type of credit institution of a coöperative character to be described forms a very important feature of the federal farm loan system. This new method of making farm mortgage loans includes both individualist and coöperative features. Both have materially aided in improving farm mortgage credit conditions and have a very important relation to our national welfare. In conformity to my topic, however, I shall confine myself more particularly to presenting facts and figures on coöperative farm mortgage credit.[5]

The Federal Farm Loan Act went into effect on July 17, 1916, the day it was signed by President Wilson. The primary object of the law was to provide capital for agricultural development, the money to be loaned to farmers for productive purposes at a low rate of interest. Only first mortgage loans could be made on farms or farm lands, and two kinds of land banks were authorized to make these loans. One kind is known as *Federal Land Banks*, which make loans to farmers through "agents" or through national farm loan associations, a coöperative organization; the other is known as *Joint Stock Land Banks* which are operated by private capital for lending money to individual farmers.

[5] For an extended discussion of the relation of rural credits to national welfare, see Chapters XI–XIII, inclusive, of the author's recent work on *The Place of Agriculture in Reconstruction.*

Twelve Federal Land Banks were organized largely by government capital, the amount subscribed by the government being $8,891,270 out of the minimum of $9,000,000 authorized. The balance of the capital was subscribed by private individuals. The aid furnished by the government in establishing this coöperative system consists in supplying the capital *without interest*. This capital, however, is to be repaid and part of it has already been paid back by the Federal Land Banks.

National farm loan associations may be organized in any locality with not less than ten members whose subscriptions for loans cannot be less than $20,000. Loans are made at 5½ per cent interest, range from $100 to $10,000, and on the amortization plan of repayment. The associations are chartered by the Federal Farm Loan Board.

The primary coöperative feature is community organization for borrowing on land security, but there is not unlimited land liability. Individual mortgages are given for the payments on which each borrower alone is responsible. The coöperative liability lies in the subscription to stock in the association equaling 5 per cent of each loan which, however, becomes an investment and receives dividends from the Federal Land Banks. The money subscribed for stock in the association by the borrowers is resubscribed by the association in stock of the Federal Land Bank, the stock being held by the bank as additional security for the loans made through the associations. On September 30, 1919, the capital of the twelve Federal Land Banks aggregated $21,387,689, of which amount $13,032,860 was owned by the national farm loan associations.

The first loans were made on March 27, 1917, so that on September 30, 1919, the system had been in active operation practically two and one half years. The rapid growth of this coöperative plan of farm mortgage credit may be realized by a study of the following table which gives by states the number of associations chartered, number of loans granted, and the total amount of loans:

The coöperative feature of the federal farm loan system was originally designed not only to aid farmers to procure better credit facilities, but to encourage thrift among all classes of the rural population by furnishing a savings-bank institution in the form of a national farm loan association. This feature, if carried out and developed, might well serve as a nucleus for the organization of a rural credit union for making short-time personal loans to farmers. I present this as a new suggestion in connection with the thrift campaign and which may serve a very useful purpose in our rural social economy.

Under the law national farm loan associations may receive savings deposits from both members and nonmembers for the purchase of farm loan bonds.[6] Anyone who may have a few dollars saved may start a savings account with an association for this purpose. A certificate is granted which states the amount of money so deposited, and the savings may bear interest for one year as high as 4 per cent. These deposits are sent to the Federal Land Bank of the district for investment in bonds or first mortgages.

[6] See Federal Farm Loan Act, Sec. 11, subd. 4.

NUMBER OF NATIONAL FARM LOAN ASSOCIATIONS CHARTERED, TOGETHER WITH THE NUMBER AND TOTAL AMOUNT OF LOANS MADE IN EACH STATE FROM THE ORGANIZATION OF THE FEDERAL FARM LOAN SYSTEM TO SEPTEMBER 30, 1919

District and State	Number of national farm loan associations chartered	Number of loans made	Total amount loaned
District No. 1:			
Maine	16	511	$1,062,550
New Hampshire	6	147	312,900
Vermont	11	306	785,500
Massachusetts	17	591	1,488,605
Rhode Island	2	50	118,400
Connecticut	15	390	1,201,600
New York	42	1,351	4,142,740
New Jersey	17	240	801,250
District No. 2:			
Pennsylvania	45	864	2,262,900
Virginia	75	2,392	6,341,850
West Virginia	24	627	1,137,650
Maryland	14	204	634,700
Delaware	1	12	24,500
District No. 3:			
North Carolina	128	2,610	4,635,550
South Carolina	100	1,631	4,387,090
Georgia	65	945	2,454,285
Florida	68	1,371	2,414,120
District No. 4:			
Tennessee	112	1,966	4,881,500
Kentucky	81	1,378	3,458,700
Indiana	90	2,361	7,913,300
Ohio	35	527	1,706,400
District No. 5:			
Alabama	107	3,413	5,752,445
Louisiana	68	2,589	4,180,490
Mississippi	141	6,493	8,259,570
District No. 6:			
Illinois	112	1,711	6,622,835
Missouri	134	2,609	7,006,900
Arkansas	137	4,757	7,266,205
District No. 7:			
North Dakota	169	5,119	15,339,300
Minnesota	144	3,117	9,318,200
Wisconsin	86	1,797	4,093,400
Michigan	117	2,699	4,855,000
District No. 8:			
Iowa	134	2,475	17,410,250
Nebraska	125	2,514	10,506,990
South Dakota	79	1,615	6,500,950
Wyoming	22	443	972,100
District No. 9:			
Kansas	129	3,082	10,771,500
Oklahoma	119	2,587	5,099,100
Colorado	130	2,395	4,591,000
New Mexico	81	1,869	2,850,200
District No. 10:			
Texas	320	10,212	28,666,561
District No. 11:			
California	113	2,869	9,315,500
Utah	59	1,407	3,973,800
Nevada	3	38	172,600
Arizona	9	232	603,500
District No. 12:			
Idaho	75	2,412	6,789,295
Montana	132	4,058	9,949,640
Oregon	91	3,018	8,715,180
Washington	153	4,408	9,426,745
Total	3,953	100,412	$261,175,346

The object of restricting the savings-bank interest to one year is to encourage the exchange of certificates into farm loan bonds.

Under a recent amendment to the Farm Loan Act which has passed the House of Representatives bonds for small investors are issued at $20, $40 and $100; for large investors at $500, $1,000, or larger denominations. When the money deposited with an association is sent to the Land Bank, it is invested for the benefit of the holder of the association certificate in first mortgages on farms, and such holder may receive farm loan bonds in exchange for association certificates whenever presented in an amount sufficient to buy a bond. These bonds make a safe investment for small savings as they draw interest at 4½ per cent.

Under the conservative plan of land appraisal and granting of a loan up to 50 per cent of the value of the land for agricultural productive purposes,—as well as the careful government supervision over loans, the associations, and the Land Banks,—no better security exists in the world than farm loan bonds. And this will hold true no matter .. the present tax-exempt feature which now exists under the law should be removed from these bonds as has been proposed. Consequently, depositors, borrowers and investors all benefit under this system. This particular feature of farm loan associations receiving deposits, notwithstanding the fact that it has not yet developed to any extent, could be made to serve a very useful purpose by encouraging thrift among all classes of our rural population and by developing a more general spirit of coöperation which could express itself in the form of rural credit unions organized in every county throughout the length and breadth of our land.

Even as it is today, with its farm mortgage coöperative feature predominant, the results of the federal farm loan system have been perfectly wonderful in encouraging agriculture, promoting thrift, and extending credit. It stands as the greatest coöperative farm mortgage credit system in existence—a monument of lasting merit to the great industry of agriculture in our own country, the greatest credit nation in the world.

Life Insurance in Its Relation to Thrift

By S. S. Huebner

Professor of Insurance, University of Pennsylvania

The Purpose of Life Insurance

THE fundamental purpose of life insurance is the capitalization of the value of a human life, and through this means the protection of dependents or business interests against the loss of the value of that life through premature death.[1] But while this is its primary object, life insurance also accomplishes a very important secondary purpose, viz., the promotion and protection of thrift. No other business institution bears so many important relations to saving. At least four of these relationships deserve special mention, and as regards most of them life insurance is unique in its service and unapproached by any competitor.

1. Life Insurance Protects the Saving Period

A common objection against life insurance may be stated as follows: "I do not believe in life insurance, I believe in saving, and I can make and save more in other ways." The answer to this objection is that life insurance alone makes saving feasible for the great majority of people. If possible, both insurance and saving in other ways should be practiced. But to start on a plan of saving (outside of life insurance), where a dependent family exists, without hedging against the

[1] Emphasis should be placed upon the value of human life as contrasted with the value of mere property. The productive lives in any community constitute by far its greatest economic value. It is the purpose of life insurance to capitalize this value for the benefit of the insured's family or business. For years we have developed a science, "corporation finance," which deals with the capitalization of lands, buildings, equipment, and good will. But it is only in recent years that our thoughts have turned to the incorporation of human life values, and life insurance furnishes the only known method of capitalizing the producing value of a life. The analogy between life insurance and corporation finance is complete. Life insurance is corporation finance applied to human values. From the moment the policy is issued an estate has been created. A life insurance policy is a *callable sinking fund* bond issued upon the life of the policy holder. It will be paid if Providence calls the policy holder. In case there should not be a call, the bond will also be paid through the accumulation of its *sinking fund* provision, or the *reserve* as it is commonly called. Live or die, payment of the bond is a certainty. The value of the earning capacity of the life has been capitalized, and should premature death destroy this value the proceeds of the life insurance policy will act as a substitute to continue, in a measure at least, the former earning capacity of the deceased.

The *protective* feature of life insurance, and for that matter of all forms of insurance, has received too little emphasis from economists. Their efforts have been confined mainly to a discussion of the problems connected with production, distribution and consumption, and a review of leading text-books on economics indicates the authors' difficulty in assigning insurance to some one of the standard divisions of the science. Often the subject is treated merely in an appended chapter. Insurance cannot logically be placed in any of the aforementioned categories. It partakes somewhat of all, it is true, but its real place is in a separate division of economic science, viz., the *elimination of risk*. The real function of all insurance is the *elimination of risk* in our economic activities. It is to be hoped that our text-books on economics will soon assign to insurance the separate division that its distinct function in our economic life so well warrants. Elimination of risk, as here suggested, contemplates not only the many commercial forms of personal and property

uncertainty of having the saving period cut short by an untimely death, is for the overwhelming majority of people an act of wanton foolishness and gambling.

It is easy to make a resolution to save $10,000 in 20 years by ways other than life insurance. But let us not forget that we are only human beings and that the fulfillment of a resolution is on the average a very doubtful product of a somewhat frail and exaggerated mentality. Assuming the sincerity of the resolution, there are three great obstacles that should always be borne in mind. In the first place, what right has a man with dependents to say, "I will save $10,000 in 20 years," when he does not know that that number of years—yes, even one year—will be given to him. The mortality table shows that out of 85,441 persons 30 years of age, 720 will be cut short in their effort to save the above $10,000, in the first year of the trial; and in all 15,637 will fail to accomplish their purpose in the set time of 20 years through premature death.

But death is not the only factor that may defeat the carrying out of a resolution to save. Let us not forget that a resolution to save, even eliminating the chance of premature death, is confronted by two other great dangers: (1) lack of will power to continue the plan (the resolution being more often ended in this way than by death) and (2) failure to keep intact what may have been saved, owing to bad investment, speculation, or tempting expenditures. Let us not forget that only about one adult in ten manages to accumulate a fairly decent competency, and that one half of the limited number who succeed in doing so again lose the same before death.

The three pitfalls just mentioned may be easily avoided through the use of life insurance which assures an estate—live or die—equal to the full face value of the $10,000 promise, as soon as the first premium is paid. In other words life insurance insures the resolution to save the $10,000 in 20 years. An illustration of a 20-year $10,000 endowment policy will serve to make this clear. Such a policy promises $10,000 at any time in the event of death during the 20-year period, and also the payment of the same sum at the end of the 20-year period in the event of survival, i.e., $10,000 is promised, live or die. An analysis of this contract shows that it is composed of two distinct portions, each supplementing the other. One portion represents a savings bank accumulation which is available at any time (after the second or third premium is paid) to the insured through surrender of the policy or at the maturity of the contract. But this savings feature is supplemented by term insurance (the other portion) which is, however, not a level term insurance of $10,000 at any time, but an insurance of an amount, which added to the investment accumulated in the savings fund at the time of death will make the amount of the policy payable equal $10,000. The term insurance portion of the contract is for a decreasing amount, being nearly equal to the full face value of the policy at the start, and gradually decreasing throughout the term of the contract. Thus, if at a particular time

insurance, but also the numerous other economic devices which accomplish the same economic function, such as "continuous organized markets," "hedging" in our produce and security markets, "options," "future contracts," "short selling," "stop loss orders," etc.

the savings portion of the endowment policy has accumulated to $1,000, the insured will be protected by $9,000 of term insurance. In the event of death, the insurance company will pay the saving accumulation of $1,000 plus the term insurance of $9,000, or a total of $10,000. In other words the insurance company agrees always to make good the difference between the amount actually saved (in this case $1,000) and the originally proposed estate which the insured was not given time to save (in this case $10,000), or $9,000. Had the insured relied upon other methods of saving, he would have left a pittance of $1,000, a sum totally out of accord with duty and good citizenship where a dependent family is at stake. When the accumulation under our policy reaches $5,000 there will be term insurance for only $5,000. Finally, at the end of the 20-year period, the savings fund will have grown to the full face value of the policy of $10,000, and the term insurance protection will have been reduced to zero. The original resolution having been fulfilled, the insurance protection necessary to protect the saving period is now no longer needed; and the insurance company will pay the full sum, or continue to hold the same in trust at the option of the insured.

The premium for the policy may be divided into two distinct parts, one part for the savings or investment fund, and the other for the decreasing term insurance. It should here be noted that all life policies, other than mere term contracts, are endowment policies. The 20-year endowment policy, for example, accumulates a savings fund which will equal the face value of the policy at the end of 20 years, the same then being paid to the insured. A whole life policy, on the other hand, is also an endowment policy maturing at age 96, i.e., the savings fund in a whole life policy gradually accumulates to the full face value of the policy at the end of life, which is 96 according to the American experience table. At that time the policy will be paid although actual death may not have occurred. In a long term endowment policy, at any given age, the savings fund is so arranged as to accumulate gradually to the full face value of the policy at say, age 65, the age of retirement, or as it might more properly be called, the age at which economic death occurs.

Protection of the saving period is the most important relationship of life insurance to saving. In our illustration, life insurance was used for a twofold purpose, viz., to save as well as to protect the saving period. But even where the saving is effected outside of life insurance it is highly essential to use some kind of a life insurance policy to protect the saving period, although it be only a pure term insurance policy. Every building and loan association account should be hedged; otherwise great distress may result in case an untimely death cuts short the saving account to a mere pittance. Every mortgage on a home or a small business should likewise be hedged with life insurance. Briefly stated the insurance proceeds, in the event of death, serve to complete the building and loan association account or the payment of the mortgage. Moreover where earnings are reinvested in a business enterprise, especially during the early years of development, or where the business is of a speculative nature, such investment should be protected against loss through the capitalization of the value of the life that constitutes the backbone of the business venture.

2. Life Insurance Is Saving

The above illustration should make it clear that life insurance policies, other than ordinary term policies, contain an important savings feature. At the close of 1917 such savings held in trust for policy holders by 241 American life insurance companies aggregated $6,000,000,000, and the gain in the savings for the year exceeded $400,000,000, or at the rate of $141,801 for every working hour of the year (assuming an eight hour day), $2,364 every working minute and $39 every working second. This showing has been greatly exceeded since 1917, although exact figures are not yet available. As a matter of fact, life insurance is distancing all other savings institutions. The savings accumulations of the 241 regular life insurance companies at the close of 1917 were three and one third times the combined assets of the 7,269 building and loan associations in the United States as reported to the annual meeting of the United States League of Local Building and Loan Associations. The gain in the savings of these insurance companies during 1917 amounted to nearly three times the total gain in assets for all the building and loan associations of the country. Moreover, the savings for policy holders held by these insurance companies exceeded the total deposits of all the 1,807 savings banks of the country by $467,000,000. The gain in the savings of the companies during 1917 amounted to nearly one and one third times the total gain in the deposits of all the savings banks in the country.

All these immense savings are earning a very fair rate of interest considering the safety of the investment. Past experience shows that life insurance companies have earned on the savings held for policy holders the largest interest return consistent with safety. During 1917 the interest earned on all the mean invested funds of the 38 leading companies was 4.94 per cent; while the average annual interest return for 20 years (1898–1917) was 4.80 per cent.

Not only is the rate of earnings very substantial, but, judging from the solvency record of insurance companies, the security of the savings held is the very best. Very rarely is there a failure of a life insurance company after it has once passed through the stage of initial development. Even in the case of newly formed companies, the insolvency record shows an inconsequential loss of savings. This may be illustrated by the record for the decade 1905–14, a wholly abnormal period in life insurance history which was characterized, as probably never before, by a craze for forming new companies. During that decade 55 companies suspended operations, but all died during infancy, the average age of these companies being four years. The combined insurance of all the failing companies was only $139,500,000,[2] and of this all except $1,033,000 was reinsured in other companies. In other words only one dollar out of every $140 of protection carried by the suspending companies was lost; but even here the policy holders had returned to them the full cash value (the savings) of their policies. The reasons for such stability are not difficult to comprehend. In the first place, life insurance "is based on nature's law of mortality." A sinking fund is accumulated in advance for all

[2] The combined insurance carried by all the regular companies exceeded $27,000,000,000 at the close of 1917.

future payments as per the requirements of a conservative mortality table, and the acceptance of risks is based on a medical selection. Moreover, no other business is so stringently regulated and supervised by the state. A drastic record of solvency is required by law, and investments, commissions, expenses, and important practices are dictated by statute. The investments of the companies are also so widely scattered as to kind, class, and location that a possible loss in one investment is counter-balanced by a gain in other directions.

3. LIFE INSURANCE REPRESENTS COMPULSORY AND CONVENIENT SAVING

The regular payment of the premium from year to year will soon be looked upon by the insured in much the same manner as he comes to regard interest upon a mortgage. Consequently, to secure the necessary funds to pay the premium, his industry will be considerably enhanced, or his efforts to save the required premiums out of income will be increased. It is the common assertion of individuals who hold life insurance policies that they became the possessors of a considerable sum of money which, under other circumstances, they would never have accumulated, or which, if they had done so, would have been lost or dissipated. Life insurance causes policy holders to stick more steadfastly to their resolution to save than do other agencies for the inculcation of thrift. When once started, the desire to remain protected through insurance acts as a powerful spur to continue the savings feature. The regular payment of premiums soon strengthens the policy holder's ability to save and soon moulds his thought in the right way. Not only is the saving habit developed through life insurance, but the insured's effort to acquire the where-with-all is also increased. When the necessity of insurance protection is once recognized, household and personal expenses are soon adjusted to the necessity of paying the premiums.

Saving under life insurance policies is also convenient, the method being admirably adapted to the placing of small sums to prompt and profitable use. The premiums may be paid in installments, if desired, and every dollar deposited with the company begins immediately to earn interest. It is for this reason that life insurance has been called "compound interest in harness." The average investor cannot invest his small savings as regularly as can the insurance company. For the average person a life insurance policy represents the accumulation of small sums (which in all probability would not otherwise be accumulated) over a long period of years into a substantial total. Stated in another way, life insurance bears the relationship to thrift that the modern utilization of by-products (largely wasted in former years) bears to many of our leading manufacturing enterprises today. The periodic driblets—the premiums—are not particularly missed by the insured. In fact they were earned—and otherwise would probably not have been—in anticipation of the due date of the premium; and had they been otherwise earned it may be doubted whether they would have been saved; and had they been saved it may be doubted whether they would have earned a fairer rate of interest elsewhere. The present savings held in trust for policy holders by the regular companies aggregate some $6,000,000,000. It is doubtful whether one fifth of this huge sum of capital would be in existence today if it had not been for the com-

pulsory and systematic influence upon saving exerted by the life insurance method.

4. Life Insurance Protects Against the Hazard of Outliving One's Income

Assuming the efficiency of the protective and compulsory savings features of life insurance, the thinking public is rapidly coming to recognize the desirability of conserving the principal of a life insurance policy against the modern tendencies of reckless expenditure or loss through speculation or unfortunate investment. To assure an income for life, it is now common to issue policies on the "income plan." This means that the principal of the insurance, instead of being given to the beneficiary in a lump sum, will be paid in installments for a definite number of years, like 20 years, irrespective of whether the beneficiary lives that long or not, and for as many years thereafter as the beneficiary may survive. In this way a definite income is assured as long as it may be needed by the beneficiary, i.e., for life. The insurance company becomes the trustee of the principal of the policy. Judged by a mortality table the average life of beneficiaries, at any given age, is well known. Therefore, the beneficiary may be promised an annual or monthly income for life, and the amount promised will be derived from two sources, viz., (1) a portion of the principal itself, and (2) the interest earned on the balance of the principal remaining with the company after the payment of each installment.

The same function is performed by annuities, which may be defined as contracts, whereby for a cash payment the insurance company agrees to pay the annuitant a definite income for life. Their purpose is to protect against the hazard of outliving one's income, and at the same time to increase the income to an extent which contemplates the gradual exhaustion of the principal itself.

To illustrate the manner in which annuities permit the utilization of savings for old-age support, let us assume that a man aged 65 possesses $15,000, and that this fund constitutes his sole means of support. If invested in the most careful manner, let us say in "gilt-edged bonds," so as to avoid any danger of loss, the current rate of return will not exceed 5 per cent, thus limiting the owner's income to $750 a year. This amount may prove woefully inadequate for proper support, yet the owner, not knowing how long he may live, does not feel that he can afford to take a portion of his principal each year for living expenses, because impairment of the principal means a corresponding reduction in income. The danger confronting this man is just the opposite of that facing the man who wants insurance against death. The latter wants insurance because he does not know how long he may live, while the former wants assurance that he will not outlive his income.

The difficulty referred to can be remedied by investing the savings fund of $15,000 in a life annuity. By doing this a definite and much larger income, guaranteed for the whole of life, can be obtained. To quote the rates of a certain company, the investment of the $15,000 in an annuity at age 65 will yield an annual income throughout life of $1,538.10, instead of $750 per annum, or 10¼ per cent as compared with the current rate of 5 per cent. As the age of the annuitant when purchasing the annuity increases, the

greater will be the return, amounting in this company to nearly 12½ per cent at age 70 and to nearly 15½ per cent at age 75. These large returns are possible (1) because the death rate following ages 65, 70, and 75 is very high, and (2) because in accordance with the meaning of an annuity all payments will cease upon death and the unused portion of the purchase price of the annuity will redound to the benefit of those annuitants still living. The apparently large return is again made up of two portions, viz., (1) a part of the principal, and (2) interest earnings on any net balance held by the company.

The advantageous use of annuities by many classes of people must be apparent. Even where a decent savings fund has been accumulated, it is usually of such modest size that the enjoyment of the fruits of a life's toil for the period of retirement from active life is spoiled by the economy that must be exercised to make ends meet, by the limited character of the comforts that can be obtained with the fund available in view of the high cost of living, if the principal is not to be touched, and by the prospect of losing the source of the income itself through unfortunate investment. The prospect, amounting almost to a terror, of living too long, makes necessary the keeping of the entire principal intact to the very end, so that as a final wind-up, the savings of a lifetime, which the owner does not dare to enjoy, will pass as an inheritance to others. In view of these facts it is surprising that so few have undertaken to enjoy *without fear* the fruits of the limited competency they have succeeded in accumulating. This can only be done through annuities. Why exist on $750 a year (assuming 5 per cent on $15,000) and then *live in fear* when $1,500 may be obtained at age 65 through an annuity *for all of life* and *minus all the fear?*

Promotion and Practice of Thrift in Foreign Countries

By S. W. Straus
President of American Society for Thrift

EUROPEAN thrift really began with Daniel Defoe. His essays marked the first crystallization of public thrift impulses. His plans for a *Mutual Marine Insurance Society* and his *Essays on Projects* constituted the first definite step toward organized public thrift. The genius of Defoe bestowed its rich gifts upon the world during the latter part of the seventeenth century, but so far ahead of his time was he that it was not until another hundred years that any definite thrift institutions began to take form. With the establishment of Europe's first savings bank in Brunswick, Germany, in 1765, there began a steady application of the principles of thrift, which grew with constant substantiability as the processes of education developed.

The havoc of war has greatly changed conditions among the masses of the people in Europe. There is a temporary absence of the former poise and steadfastness of the people. A wave of discontentment, together with a wave of thriftlessness, is sweeping England and the Continent. One hears stories of the growth of popular discord and of unprecedented wastefulness and debauchery in the capitals. The upheaval of war has left many strange impressions on the hearts of men, and it will only be through the return of the European masses to their former standards of thrift that the great political problems now confronting the nations across the sea will be solved. Belgium, long one of the most thrifty nations in the world, is beginning to settle down to her former basis. Her people have gone back to work. Production is being rapidly increased and the old time thrift is being reinstituted.

While one must witness with deep concern the throes of social and economic agony with which Europe now is suffering, it must be borne in mind that common sense, justice and right will prevail in the end, that the process of stabilization will be carried through to successful conclusion and that the thrift of the old days will again become generally practiced.

It was only through thrift that the peoples of many of the countries of Europe were able to live and make progress before the war. With tremendous populations crowded and herded together on small areas of land, life itself would have been impossible had it not been for the frugal cultivation of every square foot of soil and the conservation of every atom of resource.

Beginning of Thrift in Europe

In tracing the history of thrift in Europe, it has been found that, after the establishment of the first savings bank, a period of thirteen years elapsed before the second one was opened. This was in Hamburg, Germany, in 1778. In Aldenburg, Germany, the third savings bank was opened in 1786.

France manifested her first acceptance of thrift in 1790 when a savings bank was founded at Loire. Two years later the idea reached Switzerland in the establishment of a bank in Basil;

in another two years one was opened in Geneva.

English thrift had its first definite manifestation in 1797 when Jeramy Bentham began the establishment of a system of crude institutions called "Frugality Banks." A Christmas fund was established in the parish of Wendover, Buckinghamshire, through which the working classes were encouraged to save money during the summer to be returned at Christmas time with an additional bounty. What appears to have been the first English Thrift Society was established at Tottenham, Highcross, in 1798 by Miss Priscilla Wakefield, called a "Friendly Society for Women and Children." This was an annuity movement with provision for sick benefits and burial funds. Three years later it was developed into a savings bank which appears to have been the first institution of the kind in Great Britain. The movement spread rapidly and met with special favor in Scotland where in 1810 the Rev. Henry Duncan began a parish bank at Ruthwell in Dumfriesshire, containing many features of the modern savings bank. The institution proved profitable, and in 1814 the Rev. Mr. Duncan's plans were followed in Edinburgh by the organization of the "Society for the Suppression of Mendicity," out of which grew the Edinburgh Savings Bank.

FORMS OF THRIFT

Great Britain

Savings Bank. By 1817 the thrift movement in England had attained such proportions that the British Parliament began the control and regulation of savings banks. With this splendid encouragement banks sprang up in all important centers of population in England, Scotland, Wales and Ireland, so that by the close of the year 1818 there were in existence more than two hundred savings banks.

As the thrift movement grew in England, certain false conceptions of thrift took root. Many of the so-called thrift societies were out-and-out charity organizations. The people gained confused ideas. Misconceptions were fostered. Thrift work, if not conducted along the lines of actual charity, was, in many instances, encouraged in its most narrow sense. The broad, constructive principles of personal efficiency were ignored and the poor were taught to hoard their small earnings without thought of the underlying principle that thrift means the process of thriving, of upbuilding, of growing.

One must save his money not merely for the sake of saving, like the miser, but for the purpose of utilizing his earnings in ways that do him the most good. He must be thrifty with his time, his energies, and his health as well as with his money. He must study himself as well as the rights and needs of those about him. The thrifty man must be a dynamic force in his community, not a dead weight on society. In much of the thrift work done in England before the war, these basic principles were not understood. The conditions, which were the logical outcome of these errors, were briefly described by Mr. Hartley Withers, editor of the *London Economist*, who said:

> When the public was called upon to assist in financing the war by saving, the entire country was honeycombed with delusions concerning money and the spending thereof which made it seem an almost impossible task to persuade it within any reasonable time, that saving money was a patriotic duty in time of war or at any other time. The well-to-do class, the education of which concerning money matters was mostly a minus quantity, were convinced that, since spending money gave employment it was at all times the right

and proper thing to spend money as fast as possible and "help poor people" who wanted work. It had not dawned upon them that there is any difference between spending money on a display of fireworks and on building a factory to give employment to those who built it, and to continue to give employment to all who work in it, and, moreover, to increase the supply of goods that a man wants for his living and comfort. Among the poor classes this belief also flourished in a vague, unconscious way and in their case the prejudice against saving was greatly strengthened by the very narrow margin that the general level of wages gave them for subsistence. Their power to save was so small that those who spent all they got would almost inevitably be obliged at one time or another to live on someone else, and the deeper economic fact which lies behind saving in normal times—that without saving there can be no new capital, and that without new capital there can be no expansion of the equipment of industry—had not even dawned except upon a small minority of thinking Englishmen.

England learned well her lesson of patriotic thrift during the war. Every man, woman and child bought savings securities to the average of nearly £3,000 per capita. More than 40,000 war savings associations flourished and it is estimated that, as a result of these efforts, £1,250,000,000 came from the pockets of the very poor, a considerable percentage of whom had not saved before. This was true because the war furnished an exalted motive and the English people arose to their great opportunity with true sublimity.

A rather definite idea of the general standards of thrift in England prior to the war may be gained from the following official statistics: During the period from 1907 to 1911, of all men who died in Great Britain, over 75 years of age, 79.23 per cent left estates of less than £100, 90.12 per cent left estates under £500 and 93.45 per cent left estates of less than £1,000. During this period the 79.23 per cent of the total number of estates represented only 4.57 per cent of the value of all estates; the 90.12 per cent comprised but 8.19 per cent of the total value of estates; while the 93.45 per cent of the total number of estates constituted only 11.36 per cent of the total value. It may be said, however, that, regardless of this rather poor showing, almost every English family was protected in either one way or another through membership in a provident, friendly or insurance association.

The English Post Office Savings Bank was the pioneer in this phase of thrift work, and, therefore, the Postal Savings Bank systems in all European countries are patterned after the British plan. The system, since its establishment in 1861, has accomplished much good. It is interesting to note that the original bill "for establishing a fund and assurance office for investing savings of the poor" was introduced in the British Parliament as early as 1807, but only after agitation lasting more than half a century did the government take up this work.

In the United Kingdom there are some 12,000 offices of the Postal Bank, where deposits or withdrawals may be made. A short time before the war one person out of every seven in England had money deposited in the Post Office Savings Bank. Deposits as low as a shilling and as high as £150 are accepted from the depositor annually, and each depositor may have placed to his credit the maximum of £200, including interest. When his account exceeds this amount the balance is invested in government securities, unless the depositor designates some other use for it. The interest paid depositors is 2½ per cent.

For the benefit of small savers, penny stamps are issued, which can be redeemed when a shilling's worth have

been saved. Children over seven years of age may deposit and withdraw in their own names, but when under seven the guardian must transact the business. Accounts may be opened both by individuals and by societies. Withdrawals may be made by the depositor in person or upon due order. In cases of emergency the depositor may withdraw funds by telegram.

The English Postal Savings Bank system attends to the collection of dividends for its depositors whose accumulations have been invested in government stock, and it also makes sales of these securities, for which service a small commission is charged. Notwithstanding the popularity of the British Post Office Banks, and the vast amount of money deposited, and the low interest rate paid depositors, the system has not been self-sustaining. Italy, on the contrary, makes a profit from her Post Office Savings Bank system, after paying 5 per cent interest on her consols.

Belgium

Generally speaking, Belgium, in her pre-war days, was a nation in which pauperism was unknown. Everybody practiced thrift. The government had popular devices not unlike our war savings stamps, and, in fact, there was provision even for saving the pennies and investing them with the government. The Post Offices, the Government Savings Bank, and the branches of the Government National Bank all received deposits as low as one franc. When deposits were made in small amounts the depositor received an adhesive stamp similar to an American war savings stamp. These were pasted in a book, which was given an official number and delivered without expense to the owner. This book contained the record of all transactions with the depositor, including the addition of the interest, which was computed annually. In order to encourage school children and the very poor, postage stamps could be purchased and used as savings stamps. All letter carriers were provided with an equipment of stationery and stamps to supply those who wished to make these little investments.

Another form of practical thrift fostered by the Belgium government was the life annuity, which could be contracted for any place where government savings were accepted, and at the offices of the tax collectors as well. By this system payments, varying from one to 1,200 francs, could be made. Special attention was given to teaching thrift to the children of Belgium, for it was recognized that only in this way would the nation remain thrifty.

France

The School Savings Bank, which originated in France, has developed more successfully there than in any other country in the world, and no doubt the success of the system has been one of the underlying causes of the splendid thrift of the French people. It has been said that "France was saved by thrift." After disastrous defeat at the hands of Germany in 1870 she lost Alsace and Lorraine, and was compelled to pay an indemnity of one billion dollars. The value of thrift then was splendidly demonstrated. The people came to the assistance of the government with their savings in those dark days, and made it possible for the heavy indemnity to be liquidated in a very short time. The French have been known as a nation of bond buyers, and the issues of government bonds of very small denominations

have afforded a medium of investment which has appealed alike to the Frenchman's frugality and patriotism.

Savings Banks. Although France had an exceedingly low wage scale prior to the war, there were 362 savings bank depositors out of every 1,000 population. A very good idea of economic conditions among the people of France before the war may be gained from the following statistics: "The Annuaire Statistique" for 1910, which comprises the government reports of all the estates probated in France during the year 1909, shows that of all persons who died that year, both men and women, 29.83 per cent left estates of less than 500 francs; 25.72 per cent of the total number left estates between 500 and 2,000 francs; 28.07 per cent left estates between 2,000 and 10,000 francs; 12.39 per cent left estates between 10,000 and 50,000 francs; and 2 per cent left estates between 50,000 and 100,000 francs.

Government Bonds. The thrift activities of the French were exerted largely through the medium of the small government bonds, issued in denominations as low as two and three francs. Nine-tenths of France's 10,000,000 electors were investors either in government debt certificates or some form of security, and there were 12,500,000 savings bank depositors in the Republic, over 50 per cent of whom had each less than $4 to his credit.

An instance of French thrift is shown in the way the French secure kindling wood. They gather up the smallest twigs, load them in their little carts and carry them into Paris where they are sold. French housewives probably excel the women of all other nations in their skill in utilizing the full amount of food from their purchases. Absolutely nothing is wasted in the French kitchen. There is a recipe for every possible left-over article.

Italy

The Peoples' Banks of Italy have for many years done much to develop habits of saving among Italians. Signor Luigi Luzzatti was responsible for the Peoples' Bank movement, which originated in Milan in 1866. The small bank was organized with a capital of only $140, the primary purpose of the institution being to combat the injustice of usurers. Shares in the bank were issued and sold in denominations of $5 to $10 each, with a small entrance fee. From this small beginning the system grew until it now is a great factor in the life of the Italian people. Loans are made only on short-time maturities, usually for a period of three months, although a rather liberal policy of renewals is maintained.

"Loans of Honor" are made by some of the banks to persons who are able to furnish no security, and it is a matter of gratification to know that these loans have been made with good judgment, and that the borrowers have been actuated by motives of very high integrity.

Signor Leone Wollenborg was the founder of a similar movement among the country people of Italy. He seems to have had an understanding of the educational value of thrift, which has resulted in considerable moral as well as financial benefits. No one could become a member of Doctor Wollenborg's banks unless he were able to read and write, and as a result, great good has been done in eliminating illiteracy.

Membership in these banks is also denied to drunkards or persons guilty of any form of dissipation. The result

has been that they have exerted an uplifting influence in the rural communities where they have been established. There were, according to the best available pre-war statistics, more than 400 rural banks of independent formation in Italy, in addition to approximately 100 of the Wollenborg type.

The Peoples' Banks of Italy have detracted somewhat from the number of depositors in the Post Office Savings Banks, as the people naturally preferred to use institutions in which they were shareholders. These Peoples' Banks, in addition to encouraging frugality among the masses of the people in Italy, have enabled the farmers to develop their land to the highest state of productivity, furnishing the ready money with which to purchase stock, fertilizer, and machinery, erect buildings, construct fences, and make such other improvements as are needed.

THE COÖPERATIVE PLAN

In many parts of Europe one encounters some form of the coöperative movement. The economic value of coöperative marketing methods is the elimination of the so-called middle men. The products go directly from producer to consumer, and all unnecessary labor cost is eliminated. The producer gets the maximum price for his products, and the consumer gets his food commodities at the minimum price.

In Belgium, Switzerland, Holland and Denmark, one found before the war much development of the coöperative plan, particularly in the marketing of Holland's dairy products in London. Farmers of Holland offer splendid examples of thrift, not alone in the utilization of every square inch of available land, but also in the care and attention given to live stock. In the summer time the finer cows are blanketed to keep off the flies, and in the spring time the cattle are covered to protect them from cold rains. In the Netherlands, the grim fight to preserve their land from the constantly threatening encroachment of the sea has bestowed on the Hollanders a sturdiness of character and has made them a most admirable people. Everywhere in that wonderful country of flowers, canals and windmills, one finds manifestations of intelligent, constructive thrift. Thrift has, indeed, made Holland, as it has made Switzerland, Denmark, Belgium and France.

SAVINGS IN THE UNITED STATES AND EUROPE

By way of comparing general conditions in Europe prior to the war with those in the United States, as based on the number of savings bank depositors per 1,000 population, the United States ranked thirteenth among the great nations of the world. The relative standing of these countries in this respect was as follows: Switzerland, Denmark, Norway, Sweden, Belgium, France, Holland, Germany, England, Australia, Japan, Italy, United States. In Switzerland nearly six out of every ten persons were savings bank depositors, but in the United States the ratio was just a little better than one to ten. Statistics in Switzerland show that there was an average of five savings depositors for every two families, and in all of the European countries there was one savings depositor to each family.

The showing of various European countries in the matter of fire prevention also is of much interest. The figures for 1913, the last pre-war year, show the per capita losses from fires in

the United States as compared with the losses in Europe as follows:

United States	$2.10
England	.53
France	.49
Germany	.28
Austria	.25
Italy	.25
Switzerland	.25
Holland	.11

The practice of thrift in foreign countries can be made to serve a most worthy purpose for America. First of all, we can learn the lesson of the value of little things. Thrift as exemplified in Europe, consisted primarily in the elimination of waste. The smallest amount of money was not too insignificant to be saved nor was the most obscure bit of land unworthy of cultivation. Could America develop her natural resources as thoroughly and exhaustively as was the case with most of the countries of Europe before the war, our national wealth would be far beyond what it is today. This is one of the big lessons that America must learn. We must understand that the pennies are to be saved as well as the dollars, that the little scraps of food, little bits of land and the smallest amounts of our various resources and commodities must be guarded just as assiduously as our mightiest storehouses of wealth.

Europe also can teach us that there is a close inter-relationship between education and thrift. A general survey of pre-war thrift conditions on the Continent gave impressive demonstrations of this fact. In Russia and the Balkans one found illiteracy. In England, Scandinavia, France, Belgium and Switzerland, one found a satisfactory average of literacy with a corresponding prevalence of thrift. America must learn eventually that the development of thrift will not only be the means of solving economic and social problems, but that it also constitutes a subject of technical pedagogic interest.

If we are to develop thrift in America along lasting lines, we must begin at the foundation. We must make use of that most important laboratory, the schoolroom. We must learn to teach thrift in the classroom, not as a separate subject, but in its relationship to such branches as arithmetic, history, chemistry, biology, geography, grammar, household economics and business practice. An analysis of European thrift will reveal that among nations where the most effort was concentrated in teaching thrift to the children, the more sturdy and steadfast were the people of that nation in their thrift practices.

America must learn these great fundamental truths from the peoples across the sea.

National Saving in the United Kingdom

By William Schooling, C.B.E.
Member of the British National War Savings Committee

A REMARKABLE development of national saving has taken place as a direct result of the war. Not only are the statistics striking, but the character of the whole movement, and the basis of the appeal to save, are also remarkable. It is an example of an organisation, established to effect a somewhat limited purpose, achieving unexpected results of far greater importance.

At the outbreak of war it was anticipated that there might be a great deal of unemployment, but as a matter of fact unemployment disappeared altogether, and weekly wage-earners as a whole were better off than ever before.

Effect of War on Personal Expenditure

In the early stages of the war the government attracted workers to munition making and other occupations connected with the conduct of the war, by offering wages in excess of the market rate; this and the national need brought into employment a large number of people, especially women, who were previously not engaged in industry, and the family incomes became very large in proportion to what they had been previously. There were a smaller number of people who were making large profits out of war contracts, many of whom thought it appropriate to spend their money with ostentatious extravagance. The professional and upper classes—speaking generally—greatly reduced their expenditure, partly of necessity but largely from patriotic motives. The best shops in the west end of London and elsewhere experienced a great change in the character of their customers and gradually began to cater for the extravagant and vulgar tastes of the *nouveaux riches*.

The wage-earners, with better excuse, were also extravagant and bought cheap jewelry, furs, pianos and other things in a way that was rather pathetic. They also bought necessary clothes, useful furniture, and in particular fed and clothed their children better than before. In thousands of cases people had a surplus over the cost of necessaries for the first time in their lives and none but the unsympathetic were prepared to blame them for injudicious extravagance.

Effects of Government Expenditures on Business

The expenditure of the British government on the war was, of course, enormous. It raised by taxation about half the proportion of war costs derived from taxation during the Napoleonic Wars; it raised money, partly by loans and partly by inflation, through printing a large amount of paper money, and also by the artificial creation of credit through the banks. The natural result was to depreciate the purchasing power of money, or in other words to increase the cost of living. This led to demands for increased wages; added to the cost of war supplies; increased the amount of money required by the government; produced further inflation, and so on continuously, each

adverse condition being consequence and cause of further injury. A vicious vortex was set up which still exists and from which escape is only possible by means of increased production and of economy by the government and by individuals.

GOVERNMENT SECURITIES FOR THE WAGE-EARNER

In these circumstances the Treasury thought it would be advisable to obtain subscriptions to government securities from the wage-earners, whose incomes in terms of money, and whose "effective" incomes, especially from the family point of view, were so much larger than before. Consequently a "Parliamentary War Savings Committee" was appointed. This effort was a failure.

In 1915 a committee was appointed to consider War Loans in relation to the small investor. The Chairman was Mr. Montague, the present Secretary of State for India. This committee recommended the establishment of a body, which became known as the National War Savings Committee, and the introduction of a security called the War Savings Certificate. Both these recommendations were adopted and an unexpectedly great amount of good has resulted.

THE WAR SAVINGS CERTIFICATE

The War Savings Certificate is a registered security which costs 15*s*. 6*d*. It was originally issued for five years, at the end of which time it could be cashed for £1. The period was subsequently extended to ten years, at end of which time the certificate becomes worth 26*s*.

The Montague Committee pointed out that some of the conditions necessary for a security that would appeal effectively to the small investor were:

(1) The ability to withdraw the money invested at any time and without loss.

(2) Facilities for safe custody for people with no accommodation for keeping valuables.

(3) A rate of interest as high as is given to the large investor.

The War Savings Certificate fulfils all these conditions. It can be cashed through any post office on three days' notice. The amount obtainable within twelve months of the date of issue is the cost price of 15*s*. 6*d*. After twelve the amount is 15*s*. 9*d*. Thereafter the months cash value increases by one penny a month until at the end of four years and eleven months the cash value is 19*s*. 8*d*. At the end of five years it is £1. It again increases by one penny a month, until at the end of nine years and eleven months from the date of issue it is worth 24*s*. 11*d*., and at the end of ten years 26*s*.

On purchasing a certificate, the investor has to sign his name; this need only be done once, since, when buying subsequent certificates, the reference number of an earlier certificate owned can be given. When application is made to cash the certificate, the signature of the owner is again required. The transfer of certificates from one individual to another is not normally permitted; as the certificates are readily cashable, there is no occasion to transfer them.

No interest being earned during the first year, the rate of interest paid grows gradually during the first five years, and the rate for the five year period is just under $5\frac{1}{4}$ per cent per annum, compound. For the succeeding four years and eleven months the rate gradually falls slightly, but be-

comes 5.3 per cent compound for the ten year period.

No income tax is charged in connection with the interest on these certificates. In order to avoid loss of tax it is necessary to limit the number of certificates any individual may purchase. This limit is fixed at 500, which cost £387 10*s.*, and become worth £500 at the end of five years and £650 at the end of ten years. Each member of a family may hold 500 certificates, and an individual may hold more than 500, if acquired by inheritance, but after the holding exceeds the limit, no further certificates may be purchased. The loss of income tax is not so great as might be supposed, since the majority of the holders of certificates have incomes which are too small to make them liable to income tax.

The cost of handling securities of so small an amount as 15*s.* 6*d.* is considerable, but the advantages of a widespread holding of government securities and the individual and national benefits from the encouragement of thrift are so great that this expense is amply justified.

EXTENT OF SAVINGS OF SMALL INVESTORS

As a result of the issue of Savings Certificates and other government securities in small denominations, the number of holders of British government securities has increased from 345,000 before the war to over 17,000,000 at the present time.

War Savings Certificates were first issued in February, 1916. In addition, various War Loans and War Bonds for amounts of £5 and upwards were issued through the Post Office. Loans and bonds for large amounts were issued through the Bank of England. The contributions to war finance by the small investor are fairly represented by subscriptions to Post Office Issues. Another channel for the savings of the small investor is the Post Office and the Trustee Savings Banks. The following table summarises the subscriptions to these securities:

TABLE I. SAVINGS OF SMALL INVESTORS

Date	Increase or Decrease in Savings Banks Deposits	Government Securities Post Office Issues		Totals
		Various	War Savings Certificates	
	£	£	£	£
Aug. 1914—Jan. 1915	+ 3,316,000	....	....	3,316,000
Feb. 1915—July 1915	+ 13,517,000	34,693,000	....	21,176,000
Aug. 1915—Jan. 1916	+ 4,864,000	11,339,000	....	16,203,000
Feb. 1916—July 1916	+ 4,651,000	21,838,000	15,555,000	42,044,000
Aug. 1916—Jan. 1917	+ 5,665,000	21,772,000	32,881,000	60,318,000
Feb. 1917—July 1917	− 8,250,000	33,318,000	40,602,000	65,670,000
Aug. 1917—Jan. 1918	+ 17,256,000	17,949,000	30,346,000	65,551,000
Feb. 1918—July 1918	+ 15,094,000	19,000,000	56,454,000	90,548,000
Aug. 1918—Jan. 1919	+ 27,416,000	23,800,000	53,043,000	104,259,000
Totals	+ 56,495,000	183,709,000	228,881,000	469,085,000

The figures for the Savings Banks show the variations in the amount of the deposits and not the total deposits. The reductions in the deposits are due to money being withdrawn from the Savings Banks for investment in War Loans or Bonds.

Single documents can be obtained representing one certificate, twelve certificates, twenty-five certificates, or any number from twenty-six to 500. It is a significant fact that, since the signing of the Armistice, the sale of certificates has been well maintained; this is especially noticeable in connection with the smaller denominations of one certificate and twelve certificates.

Although, as we shall see presently, these certificates were largely purchased from patriotic motives in order to help the country during the war, the number that have been cashed in proportion to the total issued is extremely small, when compared with the normal withdrawals from Savings Banks, or the surrender or lapse of industrial life policies. Some statistics of certificates cashed are appended:

TABLE II. WAR SAVINGS CERTIFICATES CASHED

Date	Amount	Per Cent of Total in Force
	£	%
6 months ending July 1916 . . .	31,000	0.20
" " Jan. 1917 . . .	529,000	1.09
" " July 1917 . . .	1,268,000	1.43
" " Jan. 1918 . . .	1,864,000	1.58
" " July 1918 . . .	2,700,000	1.57
" " Jan. 1919 . . .	4,356,000	1.96
Total.	10,748,000	4.93

SAVINGS BANKS IN THE UNITED KINGDOM

There are two classes of Savings Banks in the United Kingdom: one is the Post Office, and the other the Trustee Savings Banks. The rate of interest paid by these banks is only 2½ per cent, and it was not unnaturally thought that the higher rate of interest yielded by certificates would lead to substantial withdrawals of deposits from the Post Office and Trustee Savings Banks. These expectations, however, were not realised, and since the Savings Campaign conducted by the War Savings Movement has been in progress, the increase in the Savings Banks deposits has been much larger than in normal times.

The National War Savings Committee was most anxious to avoid any step that would be detrimental to the permanent thrift institutions of the United Kingdom, since it was not generally contemplated that the War Savings Movement would continue for long after the termination of the war. Its success has, however, been so marked that the movement will continue, and it is intended that securities of the character of Savings Certificates shall be a permanent feature of British government finance. The terms may of course vary, and the adjustment is likely to be made by an alteration in the price, leaving the conditions unchanged.

It would be interesting to give some record of other thrift institutions in the United Kingdom, such as Industrial Life offices, and Friendly, Building, and Coöperative societies; but it may be more useful to devote the space available to some account of the National Savings Movement.

THE NATIONAL SAVINGS MOVEMENT

The National Committee was appointed by the government early in 1916 for the purpose of organising England and Wales. A separate committee was subsequently appointed for Scotland and, more recently, the movement has extended to Ireland. The account here given refers mainly to the work of the National Committee in England and Wales.

The first step was to set up local committees throughout the country. The initiative in doing this was generally taken by the Lords-Lieutenants of the Counties, Lord Mayors and Mayors of Cities and Boroughs, and the Chairmen of District Councils. Help of the most valuable character was rendered by the Education Authorities.

The response to the appeal was at first extremely disappointing, but gradually the needs of the country and the sound economic basis of the movement won recognition and at the present time there are about 1,800 local War Savings Committees. The function of these committees is to set up Savings Associations which collect subscriptions to War Savings Certificates; to carry on educational work which, as will be seen, is a most important feature; to supervise the working of the associations, and, generally, to act as the National Committee for the locality.

The out-of-pocket expenses are paid out of a Parliamentary grant administered by the National Committee, but the whole of the work throughout the country is done by unpaid volunteers, of whom there are some 200,000. The number of Savings Associations is about 35,000.

WHAT THE SAVINGS MOVEMENT ACCOMPLISHED

It was said at the beginning of this article that the movement was accomplishing much more than was originally contemplated. The truth of this becomes apparent when we consider the objects which various members of this great army thought they were working for.

The original idea was to obtain money for the Treasury from the small investor for the conduct of the war. In the minds of many workers this was the sole object. This conception was fostered by special campaigns such as Business Men's Week, Guns Week, and in connection with War Loans, the subscription lists of which were open for only a short time. Friendly rivalry between towns was a feature of these campaigns, and the amounts subscribed in each area were widely published. The appeal to support the fighting forces with money was readily responded to from patriotic motives, and the high rate of interest yielded had no weight with the vast majority of the subscribers.

It did not require much thought, however, to show two things. The first that so long as the country supported the war, the government could pay for it in some way or other, and secondly that the Savings Movement was accomplishing something of greater importance than supplying money for the Treasury. For the most part money could only be found by the small investor by reducing his personal demands for goods and services; the supply of these was limited and, by releasing them for war purposes, the fighting efficiency of the nation was increased. Further, genuine savings

effected a transfer of purchasing power to the government and served to diminish that artificial creation of purchasing power by the manufacture of credit which, as we have seen, was drawing the nation into a vicious vortex. Hence the Saving Movement was found to be increasing the efficiency for war, and, by encouraging sound instead of unsound finance, was promoting the future industrial prosperity of the country and its easier recovery from the strain of war.

Looking a little more closely into the facts it was seen that the material cost of the war was an example of the cost of waste in general. So far as concerns the reduction in the national wealth, the sinking of the Lusitania by a German submarine, and of the Titanic by collision with an iceberg, are of the same character. Whether motors are worn out in joy rides, or on the battlefield, the consequent decrease in the aggregate wealth of the nation as a whole is identical. Hence, if the nation was not to suffer unnecessarily, the waste of war must be substituted for, and not added to, the normal waste of peace time.

Manifestly the welfare of the individual was being promoted by the adoption of the course that best furthered national well-being. If lower prices were to be expected in the future than during the war, deferred expenditure would be more beneficial than immediate outlay; by accumulation at interest the amount of money available would be increased; there is the further probability that large amounts would be more wisely spent than small sums, thus yielding permanent satisfaction in place of temporary gratification. Looking further ahead, money could be provided for the education of children; the purchase of a house or a business; or the starting of a boy in some profession or trade.

The success of the movement was very largely due to the personal intercourse between the voluntary workers and the individual savers; they were making a joint effort in a common cause in face of a great national peril; it was seen that the restrictions and self-discipline were building character and forming wiser habits. Among the earliest and most successful features was the enthusiastic reception met with from the schools, in which in England and Wales there are some 12,000 Savings Associations. It was not only that habits were being formed which the children will maintain in after life, but the boys and girls became enthusiastic missionaries to their parents.

Thus, little by little the larger and enduring aspects of the movement came to be recognised. It is because of this that the movement is continuing with but little decrease of efforts, or results, now that the war has been over for a year.

It was to be anticipated that some associations would cease to exist, but large numbers of new associations are still being formed. During the war many associations had the voluntary services of workers who collected subscriptions from house to house, and there were numerous associations in munition works which have come to an end; in such cases the associations could scarcely continue.

Where, however, groups of people exist for some other purpose, such as children in schools and work people in common employment, the associations are continuing and their number is being added to.

Special schemes have been devised, by means of stamps and otherwise,

for receiving subscriptions of small amounts, such as six pences, and the account-keeping involved is not of an onerous character.

A fundamental conception of the movement may be approached in another way. Man owes his predominance over other animals largely to the fact that he is a tool-making and tool-using animal; his progress in this direction is indicated by the change from the axes and arrow-heads of the Stone Age to the power-driven automatic machines of today. It is estimated that the introduction of steam power was equivalent to the addition of 1,000,000,000 human workers. Thus there has been created a vast army of "mechanical slaves" for doing a large part of the work which mankind requires. This development has materially contributed towards the substitution, to a continually increasing extent, of life for existence. Bare necessaries are more easily obtained and there is a growing margin or surplus, making possible a higher type of life.

SOME EFFECTS OF THE WAR ON SAVING

One good result of the war has been a general recognition that the standard of living must be higher than before; thus we have shorter hours of labour, and an increase, not merely in money wages but, in effective wages. These conditions are possible if—but only if—we have increased efficiency and a larger output. Further, the increase of leisure will be fully beneficial when—and only when—people have learnt to use their leisure in ways that give lasting satisfaction and develop their higher faculties.

If we look back to any epoch that has marked a social advance, we find it to be characterised by a fuller appreciation of non-material joys. There is a desire for life, and life more abundantly, such as was expressed by the young Erasmus when he wrote from Paris "I have given up my whole soul to Greek learning. When I have some money I shall buy some Greek books, and then perhaps I shall buy some clothes." There is today in the United Kingdom a widespread, partly inarticulate, hunger for a wider life—for some familiarity with the best that has been thought and said in the world—and a desire to promote by social effort a better and a happier England. These desires are at least as marked among the wage-earners as in any other class of the community.

Recognising the advantages, that have come gradually through the ages, for a margin over bare necessaries, and appreciating the attractions of the products of invention and discovery, the National Savings Movement is not advocating saving for saving's sake, but for far greater reasons. Saving is urged as the practical method of providing the means for *wise spending* in the future. We are familiar with the housewife who can make one dollar yield more benefit than others can derive from two dollars; it is manifest that a better standard of living will come as much from wise spending as from high earning, and it is as a means to procuring the greatest and most lasting satisfaction, that saving is advocated.

The normal waste of peace time, yielding little or no permanent satisfaction, diminishes the surplus available for real life and, through the action of familiar economic laws, imposes the greatest burden upon the poorest classes of the community by increasing the cost of the necessaries of life.

Especially while we are making good

the waste of war, restricted expenditure and abstention from extravagance and waste are imperative, and the accumulation of capital for the development of industry, and the maintenance of full employment at high wages are a purpose of the utmost national importance.

In the long run, however, the desirable thing is not less spending but more spending, always provided that it is that wise expenditure which makes for the enjoyment of a higher type of life.

Throughout the long period of the life of man upon the earth there has been a rising tide of progress, accompanied by waves of retrogression; for the moment the war appears as a retreating wave, but it may be made to serve as a force in aid of the advancing tide. Britain, like America, went into the war for the cause of Freedom, Honour, and Civilisation. The defeat of Germany was but a means to a greater end, and while there remains in our midst any preventable ignorance, poverty, or disease, the cause for which so much was sacrificed will not have been won.

That cause is as much worth fighting for now as it was while the war was waging. Recognising the splendid purpose the National Savings Movement can serve, its large army of volunteers is working in the finest spirit and with the greatest enthusiasm for a social institution that will be a beneficial and enduring feature of British life.

Before the war there was published An Open Letter to English Gentlemen; it was addressed primarily to Public School and University men. They were reminded that England had done much for them, and it was suggested that they would welcome the opportunity of rendering some social service to their country. The appeal was made "You would fight, will you not also serve?" When the need for fighting came we saw the response that was made.

Today there is a double appeal; to some it is "You have fought, will you not also serve?" To the rest of us "You could not fight, will you not therefore serve?" And the fighting and the service are for the same cause.

Thrift in the United States

By George F. Zook, Ph.D.

Professor of Modern European History, the Pennsylvania State College; recently of the Savings Division of the United States Treasury Department.

Thrift Among American Colonists

THE thrift of a large portion of the American colonists is proverbial. Compelled as they were to earn their livelihood under extremely adverse conditions they showed how they appreciated the value of the products of their labor by saving them for future emergencies. They also improved their spare time in the making of tools, clothing and shoes. As opportunity offered they built better homes, barns and warehouses. Thus they assured themselves that their necessary wants in the future could be supplied with increasing ease. They earned well and they saved well. Much of what they produced and saved was permanent in character and has been passed on to future generations to use and enjoy.

In later colonial times thrift remained deeply ingrained in the character of the American people, especially those who lived in the northern and central colonies. From 1732 to 1737 Benjamin Franklin, writing under the pseudonym of "Poor Richard," found a very sympathetic audience for his *Almanac* in which, through verse and precept, he so succinctly described the virtue of thrift and the vice of waste and extravagance.

Beginning of Savings Institutions

The thrift of time and materials which was emphasized by the American colonists naturally included money thrift, but there was no established institution in America where people could place their small savings to advantage until 1816. On November 29 of that year Thomas Eddy organized "The Bank for Savings in the City of New York." This bank opened its doors for business March 26, 1819, with 80 depositors and $2,807 in deposits. Within eight months these numbers increased to 1,481 depositors with $148,372.27 in deposits.

Three days after the organization of the New York Savings Bank, that is on December 2, 1816, the "Philadelphia Saving Fund Society" was formed and immediately began to receive deposits. The Philadelphia institution was thus the first savings bank in the United States to begin operation. Shortly thereafter similar institutions were founded in Boston and Baltimore. In 1820 there were 10 savings banks in the United States with 8,635 depositors. These numbers grew to 61 savings banks and 78,781 depositors in 1840; to 278 savings banks and 693,970 depositors in 1860; and to more than 2,000 savings banks and about 11,000,000 depositors in 1914.

At the same time building and loan associations, first organized in 1831, also developed in a remarkable way. The number had so increased by 1886 that a national organization of building and loan associations was formed at Minneapolis. On December 31, 1918, reports showed 7,269 such associations to be in existence with 3,838,612 members and assets of about $1,750,000,000.

Factors Against Thrift in America

Notwithstanding the opportunities for saving money offered by these or-

ganizations and the remarkable growth which they have had, the American people developed throughout the nineteenth century the unthrifty habits for which they have been known the world over. The reasons for this condition are numerous. America has been blessed with abundant and bountiful natural resources which have been easily obtained and sufficiently well distributed to allow the great majority of American people to live comfortably without undergoing the hardships suffered by those who live in old and impoverished countries.

Moreover, the ease with which certain fortunate individuals have sometimes secured sudden wealth from our natural resources has caused a widespread spirit of speculation. Far too many people, unwilling to accept the usual interest rates paid by recognized and legitimate investments, have preferred to risk the entire principal in speculation with the hope of "striking it rich." This unfortunate tendency toward speculation has continued throughout all of our later history, although dealers in fake stocks and bonds have annually taken advantage of the situation to fleece such people out of millions of hard-earned dollars.

People who have had this unfortunate experience naturally do not forget it easily. In numerous instances they go to the other extreme and become wary of all investments except perhaps those in real estate in their immediate vicinity. This has naturally had a tendency to keep considerable sums of money out of legitimate investments and even out of the banks about which many people have had an ignorant awe or distrust which in our earlier history was often justified. This distrust explains why in the year ending March 1, 1908, 127,623 money orders representing a total of $8,054,894 were issued to "self" by the United States Post Office Department.

TENDENCIES TOWARD THRIFT

Thrift in Production. There are several exceptions to the general statement that Americans have been unthrifty. In the first place they have always demonstrated their great genius for thrift in production. This means that as a nation we have developed quantity production at the lowest possible cost more than any nation in the world. In spite, therefore, of the widespread tendency to waste goods after they are produced in this manner, the United States has steadily grown in per capita wealth from $307.69 in 1850; to $779.83 in 1870; to $1,035.57 in 1890; to $1,318.11 in 1904; and to $1,965.00 in 1912.

Saving Through Life Insurance. At the same time an increasing proportion of Americans through the active propaganda of the life insurance companies have formed the habit of investing money regularly in insurance policies, a large proportion of which, especially of a decade ago, were a combination of insurance and investment. Even at the present time many people still regard life insurance as a desirable way of saving money notwithstanding the comparatively low rate of interest which is paid. So successful, indeed, have the life insurance companies been that it has been said that while England is a nation of stock buyers, France a nation of bond buyers, the United States is a nation of insurance policy holders.

The success of the insurance companies demonstrates in no uncertain way the need for safe, convenient and well known small investments. In this respect the United States has

lagged far behind the European countries. Some relief for this situation was offered by the establishment of the postal savings banks in 1910. Their deposits have steadily increased although during the fiscal year 1917–18 the number of depositors decreased from 647,728 to 612,188. Three-fourths of these depositors are said to be recent immigrants from foreign countries. As an institution for absorbing the small savings of the American people, however, the postal savings banks have been a failure.

EDUCATION FOR THRIFT IN AMERICA

Notwithstanding the use made of savings institutions in this country before the Great War, the American people were extravagant and wasteful. The habit of saving for the future was possessed by but a small element of the population. The institutions for saving money were not so numerous and well known as they should have been and those that did exist were not commonly patronized. A general campaign which should have for its object the widespread teaching and practise of individual thrift was an urgent necessity.

Thrift and Efficiency Commission of the Young Women's Christian Association. Campaigns for this purpose had been carried on by various agencies previous to America's entrance into the European war. The life insurance companies, realizing the beneficial effect of thrift on their business, have been consistent promoters of it. The Young Women's Christian Association appointed a commission on thrift and efficiency which, in its report of 1913, emphasized the importance for women of a training for remunerative employment and especially the wise spending of money and the accumulation of savings. The same ideas have been emphasized in recent years in colleges and universities for young women where the study of household budgets has become a prominent feature of the home economics curriculum.

The American Society for Thrift. In January, 1914, the American Society for Thrift under the leadership of S. W. Straus was organized in Chicago. Through the efforts of this society the National Education Association was induced to appoint a committee on thrift, which conducted several essay contests among teachers and pupils of the schools of the country on the general subject of thrift. More than 100,000 children entered the competition for the prizes offered during the school year of 1916–17. A number of the essays and suggestions submitted by the teachers were printed as a monograph by the National Education Association and have become the basis of much of the present thrift teaching in the schools.

School Savings Banks. In 1916 the American Bankers' Association commemorated the centennial of the founding of savings banks in the United States. This commemoration afforded a convenient opportunity to call the attention of the public to the importance of the school savings bank movement in the United States. This was a movement first begun in this country in 1876 by Sereno F. Merrill, superintendent of schools at Beloit, Wisconsin. Mr. Merrill had become imbued with the idea of school savings at the Vienna exposition of 1873 where he learned of the school savings plan then in operation at Ghent and which afterwards has been operated with such great success in France. After being in operation in Beloit for five years, however, the school savings plan was dropped.

To John H. Thiry, therefore, must be

accorded the honor of instituting school savings on a permanent footing in the United States. Thiry was a native of Belgium and was therefore familiar with the school savings system of Belgium and France. On March 16, 1885, he instituted a savings bank in one of the ward schools of Long Island City, New York. At first the idea went slowly notwithstanding the fact that Mr. Thiry devoted much time and effort to the movement. In 1892, however, he was able to report that school savings banks had been formed in twelve different states with a total of 27,430 depositors holdings deposits of $207,428.76. Thereafter the movement gained momentum, and in 1915 through arrangement with the U. S. Comptroller of the Currency, the following statistics concerning the school savings banks were obtained:

	Number of Cities	Number of Schools	Number of Pupils	Number of Depositors	Amount of Deposits
New England States	75	667	172,250	89,379	$202,962.20
Eastern Central States	74	401	265,209	151,264	485,426.65
Southern States	15	32	12,427	5,122	33,328.59
Middle Western States	80	560	333,529	118,323	647,698.49
Western States	16	76	27,918	5,082	29,847.47
Pacific States	20	189	117,451	29,370	393,376.70
Total	280	1,925	928,784	398,540	$1,792,640.10

The school savings bank movement has been materially assisted by the passing of a law in Massachusetts in 1910 providing for compulsory instruction in thrift in the public schools. Acts of the legislature in New York, New Jersey, California and Minnesota also make provision for the correlation of the school savings banks with the local savings banks.

War Emphasis on Thrift

Notwithstanding all the agencies for thrift and the various movements which emphasized the virtue and necessity of saving, the people of the United States were brought suddenly to the realization shortly after entering the World War that we must conserve labor and materials as we had never done before. The money which had hitherto been spent for luxuries must be saved and loaned to the government for the purchase of vital war supplies. To these ends the people were urged to produce the greatest possible amount of food and war materials; to conserve food and fuel; and out of current savings to purchase Liberty Bonds and War Savings Stamps.

War Savings Stamps. Furthermore, realizing that the war could not be financed by the men of wealth unless assisted by the small savings of the millions of wage earners, the government provided convenient opportunities for the purchase of Liberty bonds in small denominations. Also, following the example of Great Britain an organization was authorized by act of Congress, September 24, 1917, for the sale of war savings stamps and for spreading the gospel of thrift throughout the length and breadth of the land. This organization known as the National War Savings Committee developed national plans for widespread popular education in thrift and the sale of stamps. The actual sale of the

stamps was left to each of the twelve federal bank districts. In each one of these districts a war savings director was appointed with a corps of assistants who was to establish county and city or other local volunteer organizations in each state.

The war savings stamps were sold for $4.12 in January, 1918, advancing in price one cent each month throughout the year. At maturity, January 1, 1923, the government promises to pay $5.00 for each stamp. The difference between the purchase price and the maturity value of the stamps makes an interest return of about 4 per cent interest compounded quarterly. Other features of the stamps made them particularly attractive small investments. They could be registered at any first, second or third class post office as a precaution against loss; and they could be redeemed at any time before maturity by giving ten days' notice to a post office. In such cases the rate of interest paid amounts to about 3 per cent. In order to preserve these attractive investment features to persons of small means it was provided that no one was to be permitted to hold more than $1,000 (maturity value) of the stamps.

Thrift Stamps. As a means of assisting people to accumulate small sums of money for the purchase of savings stamps, thrift stamps were sold at twenty-five cents each. The thrift stamps bore no interest, but whenever sixteen of them were accumulated they were exchangeable with the addition of a few cents, varying with the month of the year, for a savings stamp. By means, therefore, of the savings stamps the government brought an attractive investment within the reach of practically every man, woman and child of the country.

The plan of the savings campaign included considerable education in the principles of thrift. For this purpose a number of pamphlets emphasizing the necessity for thrift, advising the methods of organizing savings societies, and showing methods of regular and systematic saving through individual and family budgets were distributed to the public. As the campaign proceeded, however, the financial necessities of the government became more and more pressing and there was a gradual tendency to make the thrift campaign purely a selling campaign of war savings stamps. Every organization which could possibly be induced to do so was enlisted in the sale of the stamps. The Boy Scouts and the schools undertook the work with especial enthusiasm and the result was distinctly gratifying from a financial point of view.

The sale of the 1918 series of war savings stamps began on December 3, 1917, and continued throughout the year 1918. The original quota set for the country was not to exceed two billion dollars. This was an average of about $16.50 for each man, woman and child in the United States. One state only, Nebraska, exceeded this per capita quota with $21.18. Ohio was second with $16.39; South Dakota third with $16.38. The lowest were Georgia, South Carolina and Alabama, with per capita sales respectively of $4.78, $4.69 and $4.48. The grand total of sales for the entire country was $1,015,067,471.80 which was an average per capita of $9.64.

THRIFT CAMPAIGN AFTER THE WAR

The sale of savings stamps during the year 1918 was so gratifying to the Treasury Department that it was immediately decided to continue their

sale after hostilities ceased with the hope of making them a permanent feature of the government. The purpose was partly to raise money but especially to carry home the lesson to every American that individual thrift was as necessary after the war as it was during the war. This was an exceedingly difficult task because the natural tendency of the American people was to throw off all the war restraints and to resume the usual extravagant practises of the pre-war period. Furthermore the organization which had been carefully developed during the war fell apart with the close of hostilities. Nearly the entire corps of workers in the Savings Division at Washington and in the various federal reserve districts had to be replaced with new men and women who brought to the enormous task great enthusiasm but little experience in this field of work.

The new campaign was to be less a campaign for the sale of savings stamps and more of an educational movement in thrift. In carrying out this idea there was to be less of the popular emotional appeal and greater emphasis on the individual's self interest. It was believed that as soon as the people of the country realized the value of practising thrift and the exceptional manner in which savings stamps fulfilled the requirements of small, safe and convenient investments a steady growth in the number of investors would ensue. Thus the sale of the stamps would follow as a natural corollary of the educational movement. The objects of the entire movement as set forth by the Savings Division were to encourage people to—

1. Put aside as a first obligation, before spending anything, a definite portion of the income in savings for future use.
2. Invest these savings in a security which pays a reasonable and profitable rate of interest and which is absolutely safe—savings stamps and other government securities.
3. Use the remainder of the income so as to get full value for the money expended.
4. Use what is bought with as much care as if it were money itself.

In conducting the thrift campaign of 1919 the Savings Division immediately decided to work through established organizations. In order to deal with these organizations several sections of the Savings Division were created at Washington with corresponding units in the federal reserve districts. The most important of these sections were schools, churches, women's organizations, publications, industrial, fraternal and agricultural organizations. Each of these sections was to develop plans for continuing the savings societies formed during the war and to stimulate the formation of new ones.

In the field of the schools the thrift propaganda found a very cordial reception. Upon several occasions the National Education Association endorsed the movement in the highest terms. At its last meeting in Milwaukee, July 5, 1919, the elementary and secondary schools were urged to make the teaching of thrift compulsory. For the purpose of this instruction the Savings Division issued several pamphlets for use in the various types of schools. Further publicity was given to the school program through the two magazines, *The National School Service* and *The School Bulletin*. Arrangements have also been made in a large proportion of the schools for the sale of thrift and war savings stamps. The pupils have responded enthusiastically to the opportunity to give a practical demonstration of their instruction in thrift,

and have become regular purchasers of thrift and savings stamps.

Among the women's organizations the General Federation of Women's Clubs through its department of social and industrial conditions has worked out extensive plans for promoting the study and practise of thrift among the members of the local branches. In the industrial organizations savings societies have been promoted among the employes with the purpose of inducing them to make pledges for definite weekly or monthly savings toward the purchase of savings stamps. A large number of envelope inserts advertising the investment features of savings stamps have also been distributed by corporations when mailing dividends to their stockholders.

Through coöperation with the field workers of the Department of Agriculture the Savings Division has also been able to reach the farmers of the country. A series of twenty leaflets presenting practical thrift problems in the home were issued in coöperation with the home economics division. Widespread publicity for the thrift movement has also been gained by the work done with the labor organizations, churches and fraternal organizations.

At this time it is difficult to estimate the success of the thrift movement since the close of hostilities. The number of stamps sold during the year 1919 has fallen far below the mark set in 1918. This was anticipated from the beginning but the extent of the falling off has been an unpleasant surprise, and the figures are therefore quite disappointing. During the first six months the sales reached only $89,856,043.77 more than one-half of which were sold during the month of January while the momentum of the campaign of the previous year was behind the movement. During the month of June the sales declined to a little less than five million dollars. Since that time they have begun to increase again.

The causes for this great decrease in the amount of stamp sales are numerous. In the first place, with one exception, all the districts have made the movement primarily educational expecting that the sale of stamps would naturally follow. In the second place, the cost of living has been high and industrial conditions have been unsettled. The savings movement during 1919 has undoubtedly been advertised widely but it has not been convincing with a large element of the population. In other words it has been exceedingly difficult to make headway against the natural tendency to fall back into the pre-war habits of extravagance deeply ingrained in American character through years of practise.

One must realize, furthermore, that the practise of thrift is largely a moral question for each individual and that as such it is a process of years rather than months to secure a satisfactory universal response to such an appeal. It is for this reason that the success of the thrift movement now being prosecuted with such vigor can never be properly measured by the number of savings stamps sold. The good effects will be felt all through our economic life and many of them will not be fully realized for years to come. Moreover, the task of making out of the American people a nation of thrifty men and women is a work of years, but the enormous national and individual benefits accruing therefrom will justify whatever time and effort is expended on it.

Psychological Notes on the Motives for Thrift

By Edward L. Thorndike
Teachers College, Columbia University

A COMPLETE inventory of the motives for thrift and appraisal of each from the point of view of the common good would require thought and investigation by many men for many years. It would presuppose adequate study of the actual working of scores of agencies such as savings banks, building loan societies, installment-plan selling, deferred salary bonuses, and the like; and indeed of all forms of delayed *versus* immediate use of purchasing power.

In default of such adequate information, principles should at least be based on what knowledge is available of the ways in which, and the reasons for which, children and adults do save—that is, delay the use of such purchasing power as they from time to time obtain. The writer, however, lacks even this knowledge and can offer only certain facts and principles based on the general psychology of motives. These may perhaps be helpful.

Psychological Basis of Saving

The original nature of man,—the equipment of capacities and tendencies, desires and aversions which he inherits as he inherits a back-bone, upright posture, and power to laugh and cry — predisposes him rather against saving. Except for the tendencies to bring an attractive object to one's lair and cherish it there and to collect and hoard certain small objects, man is by nature improvident. The parental instincts lead him to feed, nurse, cuddle and protect the infant and child, but not to save for its future welfare. The tendencies to acquiring and hoarding may be used as a starting-point for habits of saving which may later be refined into habits of real thrift: they are, however, by nature productive only of indiscriminate saving of material objects; and it is doubtful whether they do much more good by the energy they supply, than they do harm by its undesirable manifestations.

On the other hand there are, working against thrift, the very strong original tendencies toward gratifying the gross sensory appetites, and toward display, mastery and approval. Everybody understands the potency of the sensory appetites, and their essential conflict with thrift. The cruder inborn passions of approval, getting and mastery and their effect on thrift are not so well understood.

Natural Tendencies of Man

The essential facts are as follows: To the situation, "intimate approval, as by smiles, pats, admission to companionship and the like, from one to whom he has the inner response of submissiveness," and to the situation, "humble approval, as by admiring glances, from anybody," man responds originally by great satisfaction. The withdrawing of approving intercourse by masters and looks of scorn and derision from anyone originally provoke a discomfort that may strengthen to utter wretchedness. The reader will understand that the approval and disapproval which are thus satisfying and annoying to the natural man are far

from identical, in either case, with the behavior which proceeds from cultivated moral approbation and condemnation. The sickly frown of a Sunday-school teacher at her pupil's mischief may be prepotently an attention to him rather than the others, may contain a semi-envious recognition of him as a force to be reckoned with, and may even reveal a lurking admiration for his deviltry. It then will be instinctively accepted as approval.

Darwin long ago noted the extraordinarily ill-proportioned misery that comes from committing some blunder in society whereat people involuntarily "look down" on one for an instant. Except for him, little attention has been paid to the originality of the hunger of man for the externals of admiration and the intolerability of objective scorn and derision. Yet these forces of approval and disapproval in appropriate form, from those above and those below us in mastery-status, are and have been potent social controls. For example the discipline of a humane home or school today relies almost entirely upon such approval from above, and finds it even more effective than severe sensuous pains and deprivations. The elaborate paraphernalia and rites of fashion in clothes exist chiefly by virtue of their value as means of securing diffuse notice and approval. The primitive sex display is now a minor cause: women obviously dress for other women's eyes. Much the same is true of subservience to fashions in furniture, food, manners, morals, and religion. The institution of tipping, which began perhaps in kindliness and was fostered by economic self-interest, is now well-nigh impregnable because no man is brave enough to withstand the scorn of a line of lackeys whom he heartily despises, or of a few onlookers whom he will never see again.

Best of all illustrations of the potent craving for objective approval, perhaps, is offered by Veblen's brilliant analysis of the economic activities of the leisure class. These he finds to be essentially vicarious consumption and conspicuous waste, or the maintenance of a useless retinue and public prodigality in order to show that you have more than you can use, and so to fix upon you the admiring glances of those who can afford to waste less or nothing at all.

To manifest approving and disapproving behavior is as original a tendency as to be satisfied and annoyed by them. Smiles, respectful stares and encouraging shouts occur, I think, as instinctive responses to relief from hunger, rescue from fear, gorgeous display, instinctive acts of strength and daring, victory, and other impressive instinctive behavior that is harmless to the onlooker. Similarly, frowns, hoots and sneers seem bound as original responses to the observation of empty-handedness, deformity, physical meanness, pusillanimity, and defect.

As things are and have been in most communities, thrift reduces, or at least delays, the chance to win approval by "relief from hunger, gorgeous display and other impressive behavior," and to attain a superior mastery-status. The "tight-wad" is scorned; the meanly dressed girl feels inferior. In popular juvenile and adult fiction, which mirror rather faithfully the instinctive proclivities of man, the necessity for thrift is at the best a burden which it is heroic to endure. The exercise of prudence about money and property is tolerated if not actually scorned.

In a less degree the instincts of adventure, rivalry, sex pursuit, parental love and general kindliness are also

against thrift. Parents, for example, tend by original nature to indulge their children in food and toys, but not to take out life insurance. To make man thrifty his original love of notice, approval, mastery and sport, as well as his cruder animal appetites, have to be counteracted by other tendencies or amended by dexterous training.

Inhibition by Rational Insight

These may be counteracted in many ways, two of which are of special interest,—inhibition by rational insight and inhibition by unreasoned repression. Inhibition by rational insight is one aim of training in good homes, schools, shops and factories. Children and others are taught by precept and by example that twenty dollars is better if saved for a bicycle than if frittered away in buying candy and trifling entertainments. They are taught that it is well to provide for future as well as for present needs, and for unforeseen needs as well as for those at present envisaged. They are taught to care for property which they or others may need later, even though there may be a present enjoyment in destroying or neglecting it. In general, they are taught the meaning of money and property as means of deferred as well as present enjoyment and purchasing power, and to consider their deferred use. More or less elaborate attempts may be made to teach them to esteem prudent behavior as well as, or in place of, size, beauty, courage, gorgeous display and lavishness. All this is a part of the general program of teaching wisdom and morality, and is useful if enough pedagogical skill is used. The person learns to value thrift rightly and redirects his instinctive appetites by such learning.

Inhibition by Unreasoned Repression

When sufficient pedagogical skill is not used to give an appreciation of the reasons, or when the reasons given for being thrifty are not really rational, we have inhibition by unreasoned repression. In this case the reason ostensibly associated with the acts of saving is incomprehensible or valueless to the saver, the active reason or motive for him being something quite different. Thus a little child may be taught to put his money in a bank "because all good children do so" or "so that you will have money for an education" or "because it is wrong to spend all your money for candy and toys." The active force in his saving is not acceptance of these maxims, but fear of parental rebuke, or love of praise, or the pride at displaying his savings, or a more comfortable feeling when other children are displaying theirs.

In such cases the child often, perhaps usually, forgets what the active force was and has left chiefly or solely a diffuse feeling that he ought to save, because it is the thing one ought to do, what the philosophers might call a categorical imperative. Such a motive is strong so long as the individual cherishes it. He can withstand arguments and persuasive attacks. Holding his position for no reasons that he knows of, he cannot be dislodged from it by reasons. The motive is weak in the sense that if it is once lost, it can be recovered only by slow re-creation.

REDIRECTING THE TENDENCIES OF APPROVAL AND SCORN

Instead of thus counteracting prodigal tendencies from without by reasoned or unreasoned habits, we may try to amend them, attacking them as it were from within.

The desire for approval can theoretically be made to favor thrift as much as it now favors lavishness. And practically such redirection of popular applause can be carried much further than past history might lead us to expect. Modern advertising, if given free scope, can almost guarantee that in a given year any defined population will approve a color combination which a year ago it detested.

It would probably not be hard to get the world to pity or scorn a man who had to have a chauffeur drive him as it now pities or scorns a man who has to be carried in another's arms. People could be taught to regard the child who went to a private school, with large tuition fees, as an unfortunate who was not expected to get on in the world without special favors,—as a "lame duck" who required a large handicap, as the weak mind who had to have a pedagogical doctor and special medicine. The woman who lived in a palatial house with a retinue of maids and lackeys might come to be viewed as insane—like a woman who should wear twenty gowns one over the other or ten hats one on top of the other, to show that she could afford that many, or who rose each half hour of the night to change to a different bedroom.

If girls and women all wore a standard dress and if it became the custom to regard any excess of quality or adornment as the effort of an inferior physique to hide its unattractiveness, the misery of unsatisfied longings for personal adornment in the poor, and the still more debasing glorification of one's self for merits really belonging to one's dressmakers and milliners, might be notably decreased. In certain girls' schools something much like this is actually attained.

Whether we try to inhibit prodigal tendencies by rational insight or to amend them by attaching the zest of adventure, power, notice and approval to thrifty behavior, success requires not only that we use right principles of persuasion and habit formation, but also that we be ingenious in the details of human engineering. The former are now fairly well known; the full development of the latter will require the time and thought of many gifted men, and much experimentation and verification. The concrete suggestions which make up the rest of this chapter are at best only a millionth part of what adequate talent and work may achieve.

IMPROVING THRIFT BY RATIONAL INSIGHT

The worst form of thriftlessness is expenditure for objects or conditions which give no essential satisfaction to the buyer or anybody else. Such utter waste is of greater magnitude than might be supposed. We buy many things which we soon find out we do not want at all. We buy vastly more things which we think we want, but only because we have been taught to believe that we want them. Let some one teach us to believe that we do not want them and our net satisfactions are increased with a decrease in costs. The coat I am wearing has buttonholes and buttons on the sleeves whose only value hangs by a convention which is itself essentially valueless to all. We pay for many objects and conditions when a different and cheaper object or condition would have suited us far better. Thus to the average girl of eighteen, an automobile and the privilege of driving it is far more satisfying than the same automobile and a chauffeur to drive her in it. To the

girl's mother the pride that her daughter can take care of herself may be far more satisfying, as well as cheaper, than the knowledge that there is a servant to take care of her. The foolish father pays ten dollars for carved animals for his child who would infinitely prefer a fifty-cent knife and a stick of wood to cut. Leaders of the public should teach it to know what it really wants and to save the expense of paying for what makes it miserable.

It has been an unfortunate custom for poets, philosophers, literary men and men of science to regard money as in some sense ignoble. We have been taught that the cultivated man cares little for money, or that money will not buy the best things in the world, or that we do not wish our children to care especially about making money. This is, however, false or at least fallacious, what is really meant being properly that the average uses of money are less noble than the average uses of wisdom, honesty, courage, female virtue, health and the like. Money is purchasing power, and wisdom, honesty, courage, female virtue and health are purchasable. Purchasing power rightly used could, for example, reduce prostitution by a large percent, and eliminate tuberculosis entirely.

The wise and cultivated man may give the world a new scientific truth directly, if he has the talent to discover it. Any man can ensure giving a new scientific truth to the world if he will purchase a perennial research fellowship of $10,000 instead of building himself a house for a quarter of a million dollars. A woman may add one to the roster of female virtue by preserving her own, but she can ensure the addition of many by spending money judiciously to provide for healthy recreation of girls or for the segregation of the feeble-minded.

The Nature of Saving

The fact that saving is simply deferred spending is perhaps worth making clearer to children and adults of uncritical minds. Saving is often felt as an essential deprivation, for example by children whose savings go year after year into a bank and never come out. If he is to be rational, the saver should think of his bank account as a fund of purchasing power; and should from time to time spend money that he has saved. Saving thus becomes dissociated from mere self-denial and a restricted life and associated with the sense of mastery and self-confidence which ordinary human nature so highly values. It is too much to expect children or unintelligent adults to save rationally for the needs of old age or sickness or for a reserve for unforeseen emergencies. Prudence with them may consist in going without candy to have a bicycle, or in denial in food, dress and amusements to have a home of their own. The foresight thus encouraged may extend to an appreciation of the value of a reserve of general purchasing power.

It may be desirable to give more people and at a younger age the conception of true economic waste. Many children and adults would be willing to save for the public if they were brought to consider the matter. They destroy in neglect what they cannot themselves use for their own satisfaction, not because they wish to injure others to save themselves a very slight inconvenience, but because they do not consider the interest of the others at all. Their deficiency is intellectual rather than moral, and is curable by reasoning and persuasion.

Also many children and adults confuse the virtue of generosity and the virtue of true economic thrift and secure the former at the expense of the latter. In the common case of discarded clothes, for example, the average American would regard himself as generous and thrifty when he gave away a suit of clothes. He is generous to the extent of the money value of the old clothes minus the money value of his own trouble in selling them to an old-clothes dealer. But he cannot credit himself with any true economic thrift, except in so far as he chooses as the beneficiary someone who will surely make effective use of the clothes. True economic thrift is in general much more surely secured if he sells the clothes; the proceeds he may use as generously as he chooses.

The Stimulus to Saving

The interest in savings is accentuated by a concrete and obvious thing to embody, represent, or at least measure it. A bank with the pile of pennies therein increasing; a farm growing by the purchase of field after field—these are more stimulating to the average mind of young or old than a bank book with ink entries or a safety-deposit box of securities. The saver's record of his savings may well be made more corporeal and obvious than it would be made if the clerical convenience and accuracy of the record were the only desideratum. In the case of little children, for example, the savings account proper might be duplicated by affixing a red seal for each quarter, a silver seal for each dollar, and a gold seal for each five dollars. Passing the ten dollar mark might be celebrated by promotion to a larger-sized book. These devices may be criticized as childish, but with little children childish motives may well be employed.

WHERE REDIRECTING THE TENDENCIES TO APPROVAL AND SCORN SHOULD BEGIN

It appears probable that men and women of notable achievement or popularity or both can encourage thrift greatly by denying to themselves and their families all forms of ostentatious expenditure. If the ablest lawyers, surgeons, bankers, manufacturers, ball-players, athletes, salesmen, musicians and actresses show a contempt for wasteful display in their lodging, service, food and dress, the fashion will in large measure spread to those who observe them directly and to the multitudes who observe them through the media of newspapers and magazines. If the most popular politicians, singers, authors, and leaders of society (whatever that may be) let their merit attach itself to plain living, luxurious display will soon lose a large measure of its reinforcement. It might become not only vulgar but also eccentric, the behavior of a crank.

Certain forms of ostentation that were considered entirely suitable five hundred years ago would be considered vulgar now, because men and women of eminence have abandoned them. Possibly the same process of association could attach vulgarity to all forms of conspicuous waste. As fast as Veblen's conspicuous waste is made synonymous with conspicuous vulgarity, imbecility and inferiority, it will tend to be replaced by conspicuous thrift, or (if we are ingenious enough in our social engineering) by modest thrift.

Thrift should then be begun with the rich, important, able, and popular. So long as it is advocated as the virtue

of the poor and lowly, the young and struggling, the propaganda will be largely self destructive. Jeffersonian simplicity can be inculcated in a land where universal ambition is encouraged only when men of Jefferson's status live simply. It is not only bad taste and bad morals for the ostentatious rich to preach thrift to the poor; it is also largely time wasted. The man who by thrift in youth is able to indulge in luxurious display later is more of an encouragement to luxurious display than to thrift. His example when he was an unknown struggler is of little force; what he does when he is known as successful has publicity and power.

If the world as a whole is to be efficient, its mighty ones must distinguish sharply between expense for efficiency and expense for display, and leave the latter to peacocks, monkeys, the feeble-minded, and women who have to make themselves saleable. They must also, and this will be much harder, teach their wives and daughters to do likewise.

Thrift in the School Curriculum

By W. H. Carothers

Professor of Education, Kansas State Normal, Emporia, Kansas

ANALYZED out of the social heritage of race experience and the environment which surrounds us are certain elements which society has found desirable stimuli to affect the generation of learners. These elements, properly organized, graduated, and classified constitute the school curriculum. Every body of subject matter which has found a permanent place in the curriculum has at some time stimulated responses in the learner that better adapted him to the world in which he lived. For convenience in treating the phenomena of the mind, and to clarify our own thinking, certain names have been given to the more or less permanent effects which these stimuli and their responses have on the nervous system of the person who experiences them. Arranged in the order of simplicity they are habits, ideas, ideals, prejudices, and attitudes. It is the business of the curriculum to bring about those changes and to realize those values which society has considered of greatest worth.

The Broader Curriculum

What has been described is the curriculum in its limited sense. The broader curriculum is the learner's total environment and includes all the influences that affect a person from birth to death. The limited curriculum is an attempt to bring order out of chaos and to control the elements which should enter into the child's education. The school is often powerless to prevent outside stimuli from creating permanent and undesirable effects. Imitation is an instinct of great potency in young people, a fact which robs the school of much of its power in its anti-narcotic campaigns so long as adults use tobacco in the presence of children. The extravagance and luxury of the modern city which attract the daily attention of the rising generation and appeal to the powerful social instinct of display will nullify in part the efforts of the teacher in thrift education. The broader curriculum will continue to have its effect, but the school will always have the advantage over the capricious phenomena of the outside world in training the young.

What Can Be Taught

The question often arises whether this idea or that thing can be taught. Can we teach patriotism? The answer is that all the patriotism we now possess has been taught to us, for we are not born in possession of this or any other sentiment. The infinite capacity of the human mind to be influenced is the most significant fact in our social life and one that has been only narrowly appreciated. Can we teach people to save in the midst of plenty? The answer is, you can teach people anything in the world that you seriously want to teach them. There are, however, many qualities desirable in the twentieth century which only careful training, requiring time, patience, and effort can bring about. Thrift is one of them. Nature has not been generous in her endowment of this quality. Opposed to the

weak collecting instinct which manifests itself in the bulging pocket of the boy of ten—an instinct adapted to a period when the child picked up small particles of food strewn among the debris of a cave—is the strong social instinct which manifests itself in gaudy display and ostentation. The difficulty of a problem, however, may easily add interest to it.

THRIFT EDUCATION THROUGH SPECIFIC HABITS

The first and most universal method of training was habit formation. It remains the basic fact in the elementary systems of education throughout the world to-day. Since the great majority of habits are fixed at an early age and remain permanent throughout the lifetime of the individual, James has spoken of them as constituting 'the great fly-wheel of society.' For the same reason it is of vital importance that thrift habits begin to take form in the kindergarten and continue throughout the elementary school period. The saving of paper and pencils, care of clothing and of school equipment, the school bank, purchase of Thrift Stamps and War Savings Stamps, and the salvaging of community waste are desirable means of establishing thrift habits. Spasmodic efforts will not bring results. The laws of habit formation forbid exceptions and accentuate the importance of regularity over mere repetition. In view of the greater ease with which habits are formed in the majority of people and the fact that only a small percentage of the population receives considerably more than a common school education it is primarily to the power of habit (so-called second nature) on which we must rely as the chief factor in the solution of our problem.

EDUCATION FOR THRIFT THROUGH IDEAS

The second method of education is through the use of ideas. While ideas are present in the earlier training they rise to prominence in that period which is included in the years devoted to the junior high school. Secondary education, which rightly belongs to the age of adolescence, has been defined as the rational interpretation of experience as the basis of future conduct. This means that the child in this stage of development demands a reason for the habits he has formed and the acts he is called upon to perform. It is properly the scientific age when the mind attempts to grasp principles and construct systems for unifying the scattered elements of his experience. This is the time par excellence for laying the foundation of sound economic thought by giving the child an insight into the economic world in which he lives.

It has been said that we are a nation of economic illiterates. If that be the case—and it is guilty only of mild exaggeration—the duty of the school is plain. It is no less true that if the defect is to be remedied the educative process must begin where the larger numbers are. The rapid depletion of the ranks of school children from grade to grade make an early beginning necessary if results are to be expected.

It has been affirmed that attempts to teach political economy in the secondary school have not proved a success to date, and that such efforts as have been made have been a waste of time. This has been due no less to the fact that teachers have been signally unprepared to teach the subject except in the form of dry subject matter of a book than to the lack of pressure from the outside. Very much

the same condition existed with reference to civics up to the time that Bryce wrote his *American Commonwealth*. Teachers had caused children to memorize the dry facts of the Constitution because no one had yet been able to see the working of American government in his own community. There is seldom much difficulty in teaching children what teachers themselves understand and appreciate.

Economic Principles in the Secondary Schools.—The first task, therefore, in preparing children for an understanding of the principles of thrift is the preparation of teachers. There has never been a period in the history of our nation when so many carelessly conceived economic theories were occupying the minds of great numbers of people. It is the time-old danger of a 'little learning' applied to a big problem. So little careful thought has been given to the subject of political economy that men have 'made the wish the father of the thought' and have confused desired ends with the means of attaining them. There is no reason why the child's grasp of economic laws should not unfold gradually and naturally with the widening and deepening of his experience. The logical time for the beginning of this development is the early years of the secondary school and belongs logically with a course in civics. The fact that the productive capacity of one man or a group of men is limited, and that the person who owns three or four automobiles and keeps a house full of servants to care for his personal wants takes labor out of the production of essential commodities can be made very plain to the secondary school child, and it may well be held as a sound principle of good citizenship.

The shroud of ignorance which has enveloped the principle of lavish spending is evidenced in the remarks of bystanders who observe that great expenditures of money, though unnecessary, give labor to the poor and keep money in circulation and make business better in the community. All that is necessary to correct these fallacies is to put the correct ideas into the minds of school children and this dangerous superficial philosophy will disappear from our thinking.

The idea once implanted in the minds of every secondary school child in America that we as individuals are the great employers of labor, and that through our purchases we determine what men and women shall do, what materials they shall use, how much of their time shall be wasted in making gewgaws that should be devoted to making sensible things,—that idea will fructify and yield manifold returns.

There are a number of economic laws which the secondary school child can grasp but this does not mean that the way to teach them is through a formal text in economics. Our economic life is so much a part of a work-a-day existence that the study of it without the imprint of the market-place, the farm, and the home, lacks reality. It becomes formal, lifeless, and meaningless.

THRIFT TAUGHT THROUGH IDEALS

The third great method of recording experience in the nervous system of the child for purposes of better adjustment is through the use of ideals or emotionalized standards. These are elements in the child's experience which when shaded off into their secondary forms, namely, tastes and prejudices, have a powerful influence in shaping character.

It required only a comparatively short period of time to create a prej-

udice against alcohol in America, and although scientists state that so ancient is the custom of drinking liquor that it is embedded in the fiber of human nature itself, the habit is passing, the miracle being wrought before our own eyes. The prejudice began to take form, and as it grew it crystallized into words with repulsive connotations. The poetic "mint julep" and the "little drink" for sociability began to lose ground in the popular mind, and "booze" with all its sordid associations got the upper hand. The power of prejudices early formed in the minds of a generation is difficult to estimate. The emotional reaction against civic corruption in America crystallized into the word "graft" which became a term of contempt, and as public consciousness was aroused by the stench of corrupt politics the words "graft," "boodle," and "pork barrel" constituted the weapons with which the common man fought his battle for decency.

Among current social and economic customs the practice of conspicuous waste for the gratification of the instinct of display and as a means of flaunting in the eyes of the onlookers superior economic status is open to attack on the grounds that waste is a sin against society. One may well speculate on the change that could be made in the public mind by a campaign of education in school and press against this deep-seated economic evil. In my judgment it will come, using as its weapon a term or phrase which will bite into the public mind until the evil from which it sprang has been eradicated. Briefly summarizing, I have attempted to show that the general method of thrift education should take the form, first, of specific habits; second, of ideas or knowledge; and, third, of ideals and prejudices.

SUBJECT MATTER OF THE CURRICULUM

Arithmetic.—We may properly pass to a consideration of the subject matter of the curriculum under its various subdivisions. In the subject matter of arithmetic, the budget, interest—simple and compound, problems relating to industry and thrift can be used as important means of accentuating the importance of thrift.

The habit of budget-making is so foreign to us either in our private or public life that the term is apt to be vague in the mind of the average person. A simple type of personal budget to acquaint the child with the principles of foresight, system, and accurate knowledge from day to day is shown below:

MONTH OF MARCH, 1920

Income:		Savings.....	$1.00
On hand ..	$0.75	Expenditures:	
Allowance .	1.50	Books	3.00
Work.....	4.50	Paper	.20
		Pencils	.10
		Collars	.50
		Necktie....	.75
		Amusements	.50
		Sundries ...	.20
		Balance....	.50
Total ...	$6.75	Total...	$6.75

Children can be taught the art of budget making, and a generation of skillful budget-makers will be a generation of thrifty people among whom fewer business failures will result than is true of the present.

The wonders of compound interest acting on capital to which regular increments are made belong in the field of arithmetic, but this aspect of the subject is receiving little if any attention in present day arithmetic courses.

The reasons assigned for the omission are doubtless plentiful, but the principle of compound interest is not unknown to our great insurance companies, banks, and other financial institutions, and is, in fact, the cornerstone of their success. It is no less important for the laboring man, and the great mass of people of slender means to become acquainted with the theory and practice of compound interest.

It may be said that since the problems involved in budgets and the principles of compound interest are not necessary in making adjustments to ordinary business life they should find no place in the curriculum. This is the view taken by a certain modern school of educators, but it should be recalled that education means much more than mere mechanical adjustment; it means superior intelligent adjustment, and as such demands training and instruction which will prepare the child to analyze and solve the more subtle problems which do not lie on the surface.

The mathematics of thrift has been carefully studied by financial experts who know, for example, the vast difference between one-tenth and one-twelfth of one per cent when applied to modern finance, but little opportunity is given the average person to get an insight into the workings of these subtle elements in financial success.

Building and Loan Associations, savings banks, insurance, annuities, and the special types of banking institutions which operate a "chain" of banks in various cities are founded on the mathematical law of compound interest. They are apt to be looked upon as the working of some mythical potency which favors the capitalist at the expense of the worker.

History.—The second subject which in virtue of its subject matter and organization provides a fertile field for thrift instruction is history. Thrift is an active principle in social evolution and the growth of civilization is conditioned by its practice.

History furnishes us with numerous instances of primitive peoples who, through their failure to practice the principles of thrift and economy, lived in almost continuous poverty. As soon as the individual men and women of these tribes began to make wise use of their surroundings they evolved into civilized nations. In these countries personal comforts and cultural life were possible. Moreover, a nation built upon so sure a foundation has nearly always been able to withstand the attack of enemy countries which lacked this sturdy strength of thrifty citizens.

There are, also, numerous instances of powerful civilized nations whose citizens have forgotten the cardinal virtues on which their forefathers built the nation. In such instances the waste and extravagance practiced by the individual citizens contributed in no small degree to the decline and fall of those nations.

In this way history makes very apparent not only the desirability of, but also the necessity for individual and national thrift. In each instance the teacher should correlate the examples in history with the conditions and necessities of the present time.

To say that our courses in history have emphasized the political and military aspects of society to the loss of the social and economic is a trite criticism, but history must uncover the foundations as well as the superstructure of institutions of the past. To recite the common, homely virtues

of mankind is a prosaic task and the story is likely to fall on indifferent ears, but the choice unfortunately does not rest with us. Fortunate is the nation which learns to enjoy the things that have to be done, for the inexorable laws which shape the destiny of nations are concerned only with what people do and not with what they like. Thrift is one of those commonplace virtues which by its homely familiarity is apt to breed contempt. Under such circumstances the common sanction of society is required to raise the habit to a position of dignity. History always has at its command a powerful instrument for creating attitudes and perspectives which determine social sanctions of the present.

Geography.—Closely allied to history is the study of geography. The great program for the conservation of our natural resources inaugurated during the Roosevelt administration should be carried on as a part of the regular work of the school. Living in the midst of abundance we have the greatest difficulty in seeing that the supply of natural wealth is limited and that the constant increase of population is destined to reduce the American standard of living unless we deal more sanely with our resources.

The Belgian Commission sent to the United States commented on our lack of foresight as follows:

> We saw miles of young trees being destroyed by fires started by engine sparks, and left to burn. We saw farms divided by wooden fences that contain enough lumber to build the homes of all Belgium. Everywhere in the country was wasted land. If we had such bounteous wealth of land and other resources as are wasted here, we could transform our people into conditions of prosperity beyond dreams.

The rising generation should be made to realize its duty to the future with respect to the bounties of nature, and it rests with the school, the one great institution of learning left under direct public control, to create deep-seated prejudices against this great transgression of the American people.

CONCLUSION

The method and subject matter of thrift instruction has been briefly outlined in the foregoing paragraphs. Not all of the departments of the school which are equipped to aid in this educational movement have been mentioned. The field of English, including reading and composition, is an unworked educational gold mine for thrift education. In general, in view of the rapid multiplication of subjects it will be wise to correlate thrift instruction with other established courses in the school until the later years of the high school, when a course in economics emphasizing the principles of thrift may seem advisable.

Of fundamental importance is the immediate introduction into the curriculum of a program which will provide for the building of good habits, the creation of correct ideas and worthy ideals of thrift. The nation waits upon the school for this service, and we may depend on the judgment and resources of the American educator to perform the task.

The Consumer's Responsibility[1]

By Hartley Withers
Editor of *The Economist*, London

WE are all of us consumers or money-spenders, and all of us, including the very poorest, could spend our money to better advantage if we tried, and make the world a much pleasanter place for ourselves and others.

"Why should I try?" asks someone very plentifully endowed with common sense. "What has it to do with me? I earn £1,000 a year, and I work for it. I shouldn't be paid this income if I wasn't worth it to somebody, and why on earth shouldn't I spend it exactly as I like? I am not responsible for our economic system. It hasn't treated me badly. I pay a lot of people to look after the government of the country and it's their business to put things right if they're wrong. I entertain freely; I give plenty away to objects that I think deserving. It's my own money, and why shouldn't I do what I like with it?"

First of all, let us try to frighten him a little. If there is any likelihood that a real economic improvement can be brought about by more sensible spending, it is surely better to try this method instead of letting things drift towards terrible experiments like general strikes, and the possibility of bloodshed and perhaps revolution. Surely it is plain that never before in the world's history has there been such world-wide unrest among the workers. Those who are in sympathy with the workers and think that they ought to, and must, get a bigger share of the world's goods, are glad to see this unrest. But to the man who is quite content with the manner in which wealth is at present distributed, and only wants to enjoy his own income, it must be a most disquieting and uncomfortable system. For he feels that he is really much more vulnerable than the workers. He must have his three good meals a day, perhaps four. They are quite used to going hungry—one of the most pathetic facts in language is the existence of a regular word for it in the north country, to "clem." If the workers could only solve the question of unity among themselves, so that a strike meant a really unanimous cessation of work by them, a general strike would become a terrible weapon against people who do not like to miss their accustomed creature comforts for a day. It is easy to talk about the strong hand and martial law, but the strong hand is a game that two sides can play at, and martial law may be met by martial lawlessness.

But if our common sense friend is a hearty, robustious person, who is not going to be frightened by phantom pictures of what might happen, we must try to persuade him that he is wrong in his confidence about his economic value and his right and title to all the good things that he enjoys. We must put it to him that of course he must do just what he likes with his money, but that possibly if he thought the matter out he might like to use it in a manner that is a little different

[1] This is an article prepared for the use of the British National War Savings Committee which Mr. Withers sent as his contribution to this volume, also.

from his present method of spending. Because if he has done us the honor of reading the preceding pages he has been brought face to face with the fact that by spending money on luxuries he causes the production of luxuries and so diverts capital, energy, and labor from the production of necessaries, and so makes necessaries scarce and dear for the poor. He is not asked to give his money away, for he would probably do more harm than good thereby, unless he did it very carefully and skilfully; but only to invest part of what he now spends on luxuries so that more capital may be available for the output of necessaries. So that by the simultaneous process of increasing the supply of capital and diminishing the demand for luxuries the wages of the poor may be increased and the supply of their needs may be cheapened; and he himself may feel more comfortable in the enjoyment of his income.

Then we proceed to appeal to that excellent common sense of his, and ask him whether he is quite sure that because he receives £1,000 a year he is really worth to the community ten times as much as the artizan who is paid two pounds a week. How much of his £1,000 a year does he really owe to himself and his own exertions and abilities, and how much of it ought to be credited to his education and nurture and the long start with which he began life? If we all started from scratch, he might fairly make some claim to having earned his success himself, though even so he would have to allow a very wide margin for luck; for his will be a rare experience if he cannot call to mind schoolfellows of his own, just as well endowed as he is in character and ability, to whom fate has only opened her purse to the extent of a few hundreds a year. Moreover, if he will remember the store of intelligence that lies dormant among the workers because they have no real education to awaken it, he will see that if the career were actually open to talent, and all talent had a genuine chance of being developed, it is possible that his abilities and attainments might be of quite commonplace standard. As it is, owing to this lamentable waste of the intelligent material that lies ready to our hands, the business world is always crying out about the scarcity of available brains.

Moreover, still appealing to his common sense, we ask him to wonder how much use his own abilities would be to him if it were not for the rest of the community that gives him ease and security and supplies him with all the comforts and luxuries that he enjoys. The argument so commonly used about landlords—that it is their neighbors who make their property valuable, by wanting to live on it—is true in a certain degree about all of us. Whatever our gifts of mind and body may be, they would avail us little towards achieving comfort, to say nothing of luxury, if we found ourselves planted by ourselves on a barren mountain top. Man, as a solitary unit, cannot acquire the well-being that is now enjoyed by the comfortable classes; he can only do so as a member of an economic brotherhood. We are accustomed to think of our economic civilization as based on competition, but in fact coöperation is much more important to it, for it is impossible to compete unless one first coöperates. This being so, since all of us who are comfortable and well fed and easy are so by the exertions of our fellows, is it in accordance with common sense,

which is closely allied with common sympathy, to stand by and see millions of those who help to provide our comfort go short of the necessaries of life if we can do anything to better their lot? Is it "good business"—for all this question is a matter of business—to spend money on things that one does not really need, if by so doing we improverish the workers and sap the strength of the nation?

"But," we shall be told, "there always must be rich and poor. It's a law of Nature that some shall be strong and some shall be weak, and that the weak shall go to the wall."

Of course there must always be rich and poor. Even if all our incomes were made equal tomorrow, there would still be a great difference in the degree of our welfare, for some men can live cheerfully on a hundred a year, and to others a thousand is penury. But because there must always be differences that is surely no reason for sitting still and leaving things alone if by a slight change in the habits of the spending classes some of the more glaring differences can be lessened.

As to the law of nature and the necessary division of mankind into strong and weak, is it safe to appeal to it before we have made quite sure that those now at the top are really the strong and those at the bottom are the weak? If the law of nature really had free play we might see a very startling redistribution of the good things of the earth. "Were there," says a great scientist and thinker, "none of those artificial arrangements by which fools and knaves are kept at the top of society instead of sinking to their natural place at the bottom, the struggle for the means of enjoyment would ensure a constant circulation of the human units of the social compound, from the bottom to the top and from the top to the bottom."[2]

Civilization, in fact, consists chiefly of a series of triumphs over the laws of nature. In a natural state, if we had a decayed tooth it would go on decaying till it gave us such pain that we should pray some kindly brother savage to batter it out with a boulder, and it is likely that he would knock out two or three more with it. Civilization provides a dentist who stops it for us and preserves it as a useful member of our anatomy. In a natural state, when dimmed eyesight and dwindling muscular power made it impossible for us to get food by hunting or fishing we should either die of hunger or be mercifully eaten by a wild beast. Civilization keeps us alive and useful long after the laws of nature would have forbidden us to cumber the earth, and finally lets us die comfortably in our beds. If the laws of nature were given free play, any question at issue between a set of Northumbrian pitmen and the shareholders for whom they work would very shortly be settled, and the shareholders, or their remnants, would be found shouting for the police. As it is, the artificial arrangements of which Huxley complains, work for the benefit, not only of fools and knaves, but of all who lead comfortable and sheltered lives, and have got nice well-paid posts, largely through the accident of being born in a certain class, and having been taught certain things at school, chiefly by their schoolfellows. We had better be very careful about talking of the survival of the fittest, for the more closely common sense looks at the matter the less certain its possessor will be that in a really natural struggle he would be among the survivors. The reason why

[2] Huxley, *Evolution and Ethics*.

man, naturally a very weak animal, has triumphed over all his natural enemies is because he had the good sense, by coöperation and care for the weak, to overcome much of the terrible waste that is implied by the unrestricted working of the law of the survival of the fittest. He has acted by the weaker members of his tribe, who, by natural laws, ought to have perished, as the dentist acts by our weak teeth, and kept them as useful members of society. In fact, we have carried our conquest of natural laws so far that a man's grasp of the good things of life depends much less on his strength and courage and ability than on the position and circumstances in which he happens to be born. "Virtue is of little regard in these costermonger times," and we are faced by a state of things under which large numbers of us, and those by no means always the weakest, do not get a fair chance of life. Common sense surely compels us to do anything that can be done to put this right, and in the meantime advises us not to talk too loudly about the laws of nature, if our position in the world depends on artificial laws which defeat them.

But common sense has still another cartridge in its belt. We shall be told that, even if we could persuade the spending classes, by more sensible spending, to increase the supply of capital, raise the wages of the workers, and cheapen the necessaries of life, we should not have touched the most serious side of the problem of poverty, which is the existence of a host of people who, from mental and bodily weakness, are not fit to work, and so could not benefit by an increase in the wages of the workers. This is quite true, but I never suggested that the reform put forward in these pages could, if adopted, cure all the economic evils in the world. It is very safe to say that any remedy which is expected to cure everything is almost certain to cure nothing. But at least it may be claimed, if wages were raised and the prices of necessaries were lowered, that the creation of these unfortunate folk, whom heredity and environment have combined to deprive of man's birthright, would be sensibly checked, and, if the process were carried far enough, would be stopped altogether. Then all that would have to be done would be for the State either to see to it that they did not reproduce themselves or to take such measures for the care of their offspring that environment might have a fair chance of undoing the hereditary weakness.

For how has this army of the unfit, whose existence is the most ghastly condemnation of our economic system, come into being? They are the creation of low wages, assisted by the miserable conditions under which the worst paid of the workers have lived for generations, and to this source of their production has been added irresponsible spending, extravagance, and consequently weakened moral fibre among the richer classes, which have turned out spendthrift ne'er-do-wells, who, in spite of all the artificial arrangements complained of by Huxley, have gradually sunk to the dregs. Both these sources of the output of unemployables might be stopped up, if the reform suggested in these pages were set to work and given time to bring forth its results. Probably it would take many generations before it would be possible altogether to weed out the unfortunate wights who are, in the expressive popular phrase, "born tired," and simply cannot face the daily effort of regular work. But

much might be done to stiffen their backbones and lessen their number if, instead of encouraging their production by underpaying our workers and making their lot difficult, and setting a stupid example of irresponsible and wasteful spending among the richer classes, we tried to bring home to all, the simple fact that by wrong spending we aggravate the economic evils of our present system, and that by wise spending we help to correct some of them.

As things are at present, the manner in which we spend our money is a matter in which we are swayed less by intelligence than by habit and convention and sheep-like mimicry of one another, tempered by weak-minded submission to the bullying of the advertiser.

"Although," says Dr. Hadley, "laws prescribing what a man may buy or sell have fallen into disuse, it must not be supposed that every man exercises his intelligence and pleasure to buy what will give him the most happiness. People are bound by custom where they have ceased to submit to law. A large part of the expense of most people is regulated, not by their own desires and demands, but by the demands of the public sentiment of the community about them. The standard of life of every family is fixed in large measure by social conventions. Few are intelligent enough to break away from those conventions, even where they are manifestly foolish. Although we have made much progress in the direction of economic freedom, it is a mistake to assume that the authority of custom in these matters is a thing of the past. With most men custom regulates their economic action more potently than any calculation of utility which they are able to make. Nor can we assume, as some writers are prone to do, that such custom represents the average judgment of the community as to the things needed for the comfort and happiness of its members. It represents an average absence of judgment—a survival of habits which doubtless proved useful in times past, but which in many instances have entirely outlived their usefulness. The success of advertising shows how little intelligence is habitually exercised in these matters. A man does not generally use his nominal freedom to buy what he wants until someone comes and tells him in stentorian tones what he wants to buy. The authority of custom and tradition can only be overcome by the authority of drums and trumpets. It is a mistake to draw too fine-spun deductions as to the motives which guide buyers in their choice, when three-quarters of the buyers exercise no choice at all. It is not merely that people want things which hurt them, or which fail to do them the maximum good . . . but that they buy things, without knowing whether they want them or not, through sheer *vis inertiæ*."[3]

This uncomfortable string of home-truths, dealt out to us all by a distinguished economist, would not hit us very hard if we were the only sufferers by the absurdities that he puts before us so clearly. If we choose to waste our own money at the bidding of convention and the advertiser, and if we could do so without hurting anybody else, we need only say with Puck:

> Lord, what fools these mortals be!

and leave ourselves to the consequences of our folly. But the folly becomes tragedy when we have once grasped the fact that bad spending makes the

[3] Hadley, *Economics*, chap. iii.

poor poorer, and it becomes necessary to look more closely into this question of the consumer's responsibility and to see whether something cannot be done to deliver him from the yoke of convention and from the paw of the advertising lion.

A sense of responsibility in the enjoyment of wealth is no new-fangled notion. In the Middle Ages the owner of land, then the form in which wealth was most commonly held, owned it only on condition that he put so many men, in proportion to his wealth, into the field when called on by his sovereign, and put himself at their head when they went into battle. This responsibility is long obsolete, and in the eye of the law and of custom a man who cuts off coupons or draws dividends and rents, or earns a big salary, may do as he pleases with his money. If he makes handsome contributions to charity, it is counted to him for righteousness, and rightly, since he is giving away what he believes, and his neighbors believe, to be his own. But, in fact, it is his own only in a very limited sense. If he has inherited it, he owes the peaceful possession of it to the protection given him by the rest of the community. If he earns it by his abilities, he owes it to exceptional training that his abilities have had, and to the neglect of the abilities of the greater part of the population, through lack of this training. The ease and comfort that he enjoys only exist because he is a member of a great whole, that works for him and works with him. If he spends his money in a manner that is harmful to the whole, he is not making a fair return to it for the benefits that it pours on him, and any expenditure that makes the lot of the poor harder is unquestionably harmful to the nation as a whole. Apart from any considerations of humanity and equity, it is economically unsound that a large proportion of the population should be short of the necessaries of life.

It is a commonplace that needs no proof that extravagance on the part both of nations and of individuals has increased very fast in the last few generations. The consequences, scarce capital and high prices, are before our eyes, "plain as way to parish church." High taxes prevent our saving and so does a so-called high standard of comfort, which generally means a high standard of ostentation, and of expenditure according to convention, instead of according to our wants.

"For at least half his expenditure," says Mr. Dibblee, "an ordinary individual does not know what he wants, and out of the other half for at least a half he does not get what he wants. . . . Half the furniture of any house is mere mimicry of other establishments, whose use is in display without beauty or comfort. Half the clothing of either children or adults is dictated by fashion and discarded before consumption. Half the wages of most of those who pay any for domestic service are for the performance of ceremony, useless, boring, and time-wasteful. Few of us are perhaps willing to admit this specifically in our own cases. . . . But it is easier to see the truth of such a generalization in the habits of others, particularly of the very rich, whose estates and stables, yachts, gardens and pictures are bought for them, kept going for them and regulated for them down to the last boot-button by a whole army of officials and experts, with only an occasional reference to any personal enjoyment which their owner may expect from them."[4]

[4] "The Laws of Supply and Demand," pp. 22, 24.

Let us leave the question of national extravagance to statesmen. Individual extravagance is a matter that each one of us can deal with himself, as far as he is guilty of it. As long as he believes that he only is a sufferer by it, and that if he outruns the constable he alone takes the consequences, he can go on merrily wasting the good things of the earth. But when once he has grasped the fact of the consumer's responsibility, he sees that it is one which he cannot evade. We are all consumers, and by our demand for goods and services we decide what goods and services shall be brought forth into the world's mart. If we abstain from, or reduce, our luxuries and frivolous consumption, we check the production of luxuries, and set free capital and energy for the production of necessaries. At the same time, by checking our consumption of goods that we do not want we save more capital and so quicken the demand for labor, and so the workers are enabled to take advantage of the increased supply of necessaries. When the workers are all supplied with necessaries and poverty in its grimmest aspect has been driven off the face of the civilized earth, then it is likely enough that increased production may give us a surplus that we can use as we like. At present we consume luxuries at the expense of the ill-fed workers.

As we are all consumers so we all have this consumer's responsibility, and nearly all of us ignore it. Extravagance is rife in all classes. Thanks to the drums and trumpets of the advertiser, and the blatant publicity with which the luxurious exploits of the wealthy are nowadays chronicled, the habit of aping the expenditure of those better off than ourselves is pathetically general. The thriftlessness of the poor, and the terribly bad use that they make of the pittance that civilized society hands out to them, are lamented by all who have worked among them. The marvels that the really destitute achieve in keeping body and soul together on next to nothing, are almost paralleled by the recklessness with which those who are rather better off take no thought for the morrow, and waste on betting or drink or cheap finery, money that is needed for their food and clothing. In their case it is natural enough. How many of us, who have been brought up differently, would act differently if we had to live their lives and face the problems that they deal with daily, and look forward to the future that is before them? But it is one of the lessons that the leaders of the workers have to teach, that they also have responsibility as consumers and that labor can never win a complete victory until it has conquered its own lack of thrift.

"When we remember," says Walker, "that the expenditure of the people of Great Britain, annually, for alcoholic beverages reaches the enormous sum of £180,000,000 . . . four-fifths, at least, of which is spent in a way that is not only without any beneficial effect, but is positively injurious, a large part of it going to the destruction of moral, intellectual, and physical power, we get a rude measure of the force which a wiser consumption of wealth might introduce into the economic life of that country."[5]

In this matter of the consumer's responsibility an enormous influence can be exercised by women. In the constituency of consumers they have

[5] *Political Economy*, Part V, chap. iii. The Second Edition, from which I quote, was published in 1887. Our National drink bill for 1913 was 166½ millions.

already got a vote and a majority, and can use it today with overwhelming effect. Most of the world's spending is done by them, especially in the middle class, whose numbers and wealth make its action all-important. In many middle class households the man, the ostensible head of the family, is more or less in the position of the doctor described by Mr. Arnold Bennett in *Buried Alive*, whose "wife and two fully developed daughters spent too much on their frocks. For years, losing sight of the fact that he was an immortal soul, they had been treating him as a breakfast-in-the-slot machine: they put a breakfast in the slot, pushed a button of his waistcoat, and drew out banknotes." Household expenditure, that bulks so large in most of our budgets, is usually regulated almost entirely by the women of the family, who are the spending departments of the domestic Civil Service. If women could be brought to see, and act on, their responsibility as consumers, we should have made a long step forward towards a big reform. How far some of them are from this perception is shown by the example of a lady who lately achieved the honor of public mention in the newspapers by owning over a hundred nightgowns.

Summing our conclusions up, we may say that two evils now stand in the way of a better share for the workers in the good things of the earth. These are the dearness and scarcity of capital and the dearness and scarcity of food and raw materials. Both these evils every one of us can help to correct by spending less on luxuries, and living more sensible lives, in accordance with a more genuine standard of comfort, based on our real wants instead of mimicry of the extravagance of our neighbors.

If we did so we should at the same time be working to do away with two important causes of discontent with the results of civilization. The discontent is due partly to our comparing our present comforts, not with those enjoyed by our forbears, but with those indulged in by our neighbors, and partly to an uncomfortable feeling that the existence of poverty in the midst of wealth is a disgrace to our civilization. Now we find that we can do something towards expelling both these causes of discontent by a single effort of mind, by seeing that members of the well-fed classes are better off than they have ever been before, if only they would recognize the fact and not always be asking for more. The keenness of the struggle among them is only due to a false ideal, which makes comfort consist in spending more than one's neighbor. If they would straighten out this twist in their minds, they would kill one cause of discontent at a blow, and by the more rational expenditure that would follow they would do something to kill the other; by checking the demand for luxuries, laying by more capital for industry, and helping the production of necessaries. So we might do something towards making a world in which the poverty of those who do the hardest work should no longer be a reproach to all who enjoy its comforts. And we could do it ourselves, every one of us who have more than a living wage.

The Promotion of Thrift in America

By Alvin Johnson
Editor, *New Republic*

So long as we live under an economic system in which income is distributed on another basis than that of need, savings from private income or "thrift" will remain the most natural source of new capital for investment, the source involving the least hardship to individuals. So long as there are adverse chances of life against which adequate provision cannot be made through the insurance principle, every man who hopes to live in reasonable security will strive to build up reserves of purchasing power. As our economic life is now organized, and is likely to remain organized to a point in the future beyond the reach of reasonable calculations, the exercise of thrift is a public service and a private virtue. This has always been sufficiently clear to the few who have had the opportunity and taste to trace the operation of economic forces to their remote ramifications. The problem is: How to make the claims of thrift cogent to those who are not in the habit of abstract economic analysis, how to induce the maximum number not only to recognize these claims but to act upon them, against the solicitations of present indulgence and against the organized forces that through argument or suggestion support the counterclaims of the principle of free spending.

Education for Thrift

Something may, I believe, be accomplished in this direction through education. The fallacy of the argument that spending stimulates trade while saving kills it does not present logical difficulties beyond the control of the average child in the last years of the public school. If we could introduce the school savings bank generally and build up in connection with its administration a set of lessons explaining the use to which the savings are put, the source of their earnings, the possibilities of compound interest, we should no doubt in time add considerably to the number of habitual savers. There are also many directions in which the educational method might be applied to adults. It should not be impossible, for example, to interest labor organizations in the question whether the condition of the reserves of the individual members is not a mighty factor in determining the outcome of labor disputes. There is much evidence that could be assembled on this point. It would work toward establishing the rule of conduct: "Every union man should keep several months' reserves ahead."

Social Policies for Stimulating Thrift

Additional possibilities of bringing educational methods to bear upon the problem of extending the practice of thrift will readily occur to everyone. I do not linger over them because I believe that the habits of saving or spending, like most other personal habits, are rather refractory to logical demonstration and reasoned precept. Most men who have learned to practise thrift have been little influenced by theory and exhortation. They have

been much influenced by environing conditions that make saving and investment as easy and natural as spending. The farmer who is yearning for a tractor is not in a state of mind essentially different from that of the suburbanite who is yearning for a touring car. Each cuts down expenses where he can to realize his desire. Each saves, for a while. But when they have realized their desires, the farmer has an instrument of production which, barring miscalculations, will add to his income by an amount equivalent to interest on the money he paid for it, together with a fair sum to offset wear and tear. The suburbanite has an instrument that adds no doubt to his happiness but rather helps him to spend his remaining income than to increase it. I hasten to disavow any intention of suggesting that the one application of purchasing power is more rational than the other. All I mean to imply is that differences in external conditions may have more to do with the practical exercise of thrift than inherent differences in temperament or differences in training, and that a social policy of stimulating thrift ought to look closely to these conditions. It should not expect the same measures to work with the factory hand or department store employe as may be expected to work with the farm laborer or share tenant. As in most other matters of social policy, we ought to attend first of all to classification.

Thrift in Agricultural Population

Let me offer, by way of suggestion only—for any one by taking thought can improve upon it—a rough classification of the American groups in which it would be desirable to stimulate thrift, with some opinions, also tentative, as to how thrift might actually be encouraged in each class. I shall begin with the agricultural population. Here we have (1) the independent farmer, with unencumbered holding; (2) the farmer owning subject to mortgage; (3) the tenant, ranging in status from (a) the more or less prosperous cash or share tenant of the North to (b) the Negro tenant, grading all the way down to peonage in the South; (4) the farm laborer.

As to the independent farmer, it may be thought that he is already sufficiently thrifty; nothing needs to be done to encourage him to save. That may in most instances be a sound view of the farmer's condition; but have you ever observed what happens in a typical farming community where mortgages are well cleared off and money begins to back up in the local banks? That is a fertile field for the promoter of speculative enterprises—oil, copper, or gold, Canadian wheat lands or orchard lands in Florida or California. And the fruit of most of this speculative activity is disillusionment and lessened incentive to save in future. What such a community could profitably absorb is safe and sound paper in local businesses—banks, elevators, mills—for a good yield, or the bonds of the federal, state and local governments, or of solid private corporations, for ready convertibility in case the usual sources of annual income fell away too seriously. The prosperous farmer won't have such investments; he wants sudden wealth through lucky speculation? Try him. Present to him the true merits of sound investments as seductively as the false merits of the unsound. That has never been done, so far as I know. Here is an opportunity for the educational method.

The farmer owning subject to mortgage usually has all his thrift instincts

harnessed to one purpose, paying off the mortgage. You would say that of course such a farmer would save all he could; his mortgage usually falls due within a very brief period—seldom more than five years—when he stands a chance of losing his equity unless he pays in full. But there is such a thing as putting so heavy a load behind an instinct that it balks altogether. It is astonishing how often the mortgagor comes up at the end of the period with a request for renewal of the whole loan. I have an impression, vague for want of any statistics for America that are to the point, that more net progress in payment is made in countries where such loans run from twenty to fifty years, with small compulsory instalments and no limit upon repayment at the option of the debtor. Practical men in America have a theory that the short term loan with drastic renewal possibilities makes for desperate struggles to save. That is a theory that wants fortification with facts, before it can override the reasonable psychological assumption that thrift grows best not under desperation but under reasonable ease and security.

We are experimenting, under the Federal Farm Loan act, with what I conceive to be the sounder principle; we need to push it much more energetically, and especially to use every effort to place farm loan bonds with the farmers themselves, so that as nearly automatically as possible the man who has extinguished his own debt may proceed by way of becoming an investor in loans to other farmers. That is a way of opening this field to non-speculative securities. It would have another effect of direct bearing upon the prospects of our next class, the tenants.

The Tenant Farmer. No democratic American contemplates with satisfaction the idea of a permanent agricultural tenantry. As we would have it, the status of tenant ought to be a passing phase in the individual progress from farm hand to unencumbered owner. But at present there are two serious barriers to this progress, the one, the limited opportunity to secure long term purchase loans, the other, selling prices of land in excess of investment values. Much of our land is held at such a price that the interest a buyer would have to pay would greatly exceed the rent a tenant would pay. That is a heavy penalty upon the enterprise of establishing ownership. Its existence is usually explained by reference to the fact—which is not a fact—that land is sure to go up. A truer explanation, though a negative one, is that owing to our failure to develop among the agricultural population the habit of investing in sound securities, the very conception of investment values is wanting. A prosperous farmer with money to invest looks about for land to buy, as something certainly safe, not recognizing that there are security investments equally safe and much more convenient and productive. And so he contributes his share to hoisting the price of land above the reach of the man who must pay for it with what he can earn on it. The consequence is an inevitable discouragement to the tenant which makes for thriftlessness. The influence does not end with the tenant class, but sinks through it to the agricultural laborer, whose case, in the northern agricultural sections, is the case of the tenant, merely somewhat exaggerated. Sound education, not directly in thrift, but in investments and investment values, would appear to be the most promising

method of attaining the desired end.

The Negro share tenants in the South stand on a different footing. Ownership of land is for many of them a goal well beyond the horizon. Their immediate goal is the ownership of a working capital sufficient to deliver them from the crop lien and their consequent absolute dependence upon the local trader, often the landlord in another capacity. A condition more inimical to thrift could hardly be conceived. Apparently the first stage toward preparing the ground for thrift must be the creation of personal credit associations to break the tenants' dependence upon the local merchants; and consumers' coöperation to curb the merchants' prices. I am aware of the difficulties that such an enterprise would entail; of the resistance that would be offered by established interests that profit, apparently, from the dependence and degradation of the Negro tenantry. But the record of what intelligent racial leadership was able to accomplish in this direction in Poland and the Baltic Provinces, under conditions even less promising, makes the undertaking seem far from hopeless. It is sufficiently recognized in the South that a hopeless, thriftless, shiftless Negro tenantry is a wretched foundation for permanent prosperity, so that a serious attempt at a substantial improvement would command support even among the classes that gain immediate profit from the existing system.

Thrift Among Wage Earners

The Immigrant. In the case of the urban laborer there is as great need for classification as in the case of the farming classes. The same methods will not work with the salaried classes as will work with the wage earning classes. The methods of thrift stimulation that might be effective with the American born laborer, usually occupying the better paid position, could not be expected to be so effective with the recent immigrant, uncertain in his strange surroundings and suspicious of all efforts that may be made to set him on the road to prosperity. The immigrant, as he lands, is not as a rule wanting in disposition toward thrift. He means to save all he can, as often as not with the intention—quite natural and legitimate—of carrying it away with him. He fears, and not without good reason, that somebody will try to euchre him out of any savings he may accumulate. What he asks of us is a place to store his savings in absolute security. We do offer him the services of our savings banks, in the greater part of the country as nearly absolutely secure as any rational and well informed person would desire. But the immigrant is not well informed, and suspects. He would trust the government, and the government meets his desires half way by providing postal savings banks. Only half way, however, for the government, out of a gentlemanly desire not to compete with any private enterprise, pays a rate so low that the immigrant feels robbed. European governments in their poverty pay better rates. Why could not America? America could and should pay as high a rate as the yield of government bonds, less the cost of administering the system. It could and should exert itself to place the government bond itself in the hands of the postal saver who has accumulated a sum sufficient to pay for it. Even a partial payment plan, in time of peace as in time of war, would be worth trying. A United States government bond in the hands of a recent immi-

grant would be a good start in Americanism and a conservation of thrift that is likely to profit us in the end, for most immigrants, whatever their original intention, stay with us.

The American Born Laborer. In dealing with the American born workman something other than facilities for saving is required. He knows sufficiently well of the existence of facilities that would suit him if he wanted to save. But he is suspicious too; suspicious of everything savoring of an attempt on the part of outsiders to improve and perhaps control him. A good rule would be to consult him first. It is impossible to consult him in his collectivity, but he has an abundance of shrewd leaders who know pretty exactly how he feels.

One thing that the American workingman will want to know before he will take the least interest in any movement designed to stimulate thrift is that it is not in intent or in tendency a scheme to make him more safe and sane, more content with his present lot, less disposed to organize and strike. There has been a vast amount of advice to labor from adherents of the orthodox economic school, to work and to save, and to endeavor to raise himself out of his class on the wings of his savings. All that has to be counteracted before any thrift movement will look to him like anything but insidious hostile propaganda. Then, as a practical fact, in every struggle over wages, in order to win popular support labor must win credit for the assertion that wages are insufficient for decent living and capital must demonstrate that wages are quite adequate. What would have been the effect upon public opinion in the recent coal dispute if the operators could have published the headline "Aggregate bank deposits of 'exploited' miners $40,000,000." That would be an average of $100 apiece. Of course they ought to have an average of much more than that; any single miner with only so much faces a disquieting future, having one month's provisions ahead and three months' shut downs as common as the changes of the seasons. If they had an average of $1,000 ahead it would be meagre enough as reasonable security. But how would $400,000,000 or even $40,000,000 look to you and me, members of a general public more prone to gasp at big aggregates than to reduce them to their true meaning? The coal miners can't afford to save—openly—so long as their wages need readjustment and so long as we of the general public do not see that the power to accumulate a reasonable reserve against the contingencies that beset every man's life is as natural a right as the right to bread and butter.

And then there is the history of attempts on the part of employers to fix the loyalty of their men through the investment of a few dollars in the business, forfeitable in case of strike or departure without cause; of attempts to plant employes in partial payment houses, not in practice salable in the event of retirement from the enterprise and from the neighborhood that lives by the enterprise. Not to pursue the inquiry farther, there is a great tangle of unhappy experience to be unravelled before you can say "thrift" to a trade-conscious American workman and not elicit a cold grin.

Yet, as I have pointed out before, there are cogent facts on the side of thrift. In a strike still pending, when funds ran low the strikers succeeded in tiding themselves over by hypothecating the Liberty bonds held by the collective membership. The differ-

ence between having bonds or not may prove to be the difference between victory and defeat. The general public may curse them for capitalists, if they win, but it would not bless them for anything if they lose. Now, I am not urging that a thrift campaign be inaugurated among trade union men to enable them to win any strikes they may undertake. I am urging that it is possible, through the men themselves, to work out a scheme by which the creation of individual reserves would appear clearly to be at least as much an element of strength as of weakness in industrial conflicts, and an element of strength alone in all the non-contentious mischances of life.

I have already exceeded the space allotted to me, and therefore I cannot trace out the altogether different case of the salaried employe of private enterprise or of government service, with present security and highly developed concern over the latter end of life, with which the average wage earner troubles himself little. His case suggests the endowment principle as the worker's case suggested saving for a reserve and the farmer's case the accumulation of a permanent capital. But I have ranged widely enough for my purpose, anyway. That purpose was to suggest that thrift, as a national force, worthy of the most serious attention on the part of political science and statecraft, is not something simple, to be promoted by large simplicities of method, but something extremely complex to be handled successfully only after due consideration of the varying conditions under which men live and by methods judiciously adapted to those conditions. One thing all lives have in common: uncertainty; one maxim all men may take to heart: be prepared; and for the vast majority of us, thrift is essential to being prepared. So much may be inculcated in all the schools. But that is only elementary. We shall make real progress when we give due recognition to the necessity of applying the weft of diverse circumstance to the warp of common principle.

Appendix

What a saving of $1.00 a week amounts to at interest compounded Quarterly

Years	*3%*	*4%*	*5%*	*Years*	*3%*	*4%*	*5%*
1	$52.79	$53.05	$53.31	28	$2,277.79	$2,675.45	$3,160.50
2	107.18	108.25	109.34	29	2,399.69	2,837.13	3,374.83
3	163.22	165.69	168.22	30	2,525.28	3,005.38	3,600.07
4	220.96	225.47	230.11				
5	280.45	287.67	295.14	31	$2,654.68	$3,180.46	$3,836.79
6	341.75	352.40	363.49	32	2,788.01	3,362.65	4,085.57
7	404.91	419.76	435.32	33	2,925.39	3,552.23	4,347.02
8	469.98	489.85	510.81	34	3,066.93	3,749.51	4,621.80
9	537.03	562.78	590.15	35	3,212.76	3,954.81	4,910.57
10	606.11	638.68	673.53	36	3,363.03	4,168.44	5,214.05
				37	3,517.85	4,390.74	5,532.99
11	$677.28	$717.67	$761.15	38	3,677.37	4,622.07	5,868.20
12	750.62	799.85	853.24	39	3,841.73	4,862.79	6,220.49
13	826.18	885.38	950.02	40	4,011.08	5,113.29	6,590.73
14	904.04	974.38	1,051.74				
15	984.25	1,066.99	1,158.63	41	$4,185.57	$5,375.95	$6,979.84
16	1,066.90	1,163.36	1,270.97	42	4,365.35	5,645.21	7,388.77
17	1,152.06	1,263.56	1,389.03	43	4,550.58	5,927.47	7,818.54
18	1,239.80	1,368.00	1,513.11	44	4,741.43	6,221.20	8,270.20
19	1,330.20	1,476.60	1,643.51	45	4,938.07	6,526.85	8,744.88
20	1,423.35	1,589.60	1,780.55	46	5,140.68	6,844.92	9,243.74
				47	5,349.44	7,175.90	9,768.02
21	$1,519.32	$1,707.19	$1,924.57	48	5,574.53	7,520.31	10,319.01
22	1,618.21	1,829.56	2,075.93	49	5,796.45	7,878.72	10,898.07
23	1,720.09	1,966.89	2,235.00	50	6,025.10	8,251.67	11,506.64
24	1,825.06	2,089.40	2,402.18				
25	1,933.22	2,227.28	2,577.87	75	$14,652.69	$24,546.45	$42,429.97
26	2,044.66	2,370.77	2,762.52				
27	2,159.49	2,520.08	2,956.57	100	$32,866.22	$68,620.89	$149,529.83

The Amount of $100.00

	At Simple Interest			*At Compound Interest Compounded Quarterly*		
Years	*3%*	*4%*	*5%*	*3%*	*4%*	*5%*
1	$103.00	$104.00	$105.00	$103.03	$104.06	$105.10
2	106.00	108.00	110.00	106.16	108.29	110.45
3	109.00	112.00	115.00	109.38	112.68	116.08
4	112.00	116.00	120.00	112.70	117.26	121.99
5	115.00	120.00	125.00	116.11	122.02	128.20
6	118.00	124.00	130.00	119.64	126.97	134.74
7	121.00	128.00	135.00	123.27	132.13	141.60
8	124.00	132.00	140.00	127.01	137.49	148.81
9	127.00	136.00	145.00	130.86	143.08	156.39
10	130.00	140.00	150.00	134.84	148.89	164.36
11	133.00	144.00	155.00	138.93	154.93	172.74
12	136.00	148.00	160.00	143.14	161.22	181.54
13	139.00	152.00	165.00	147.48	167.77	190.78
14	142.00	156.00	170.00	151.96	174.58	200.50
15	145.00	160.00	175.00	156.57	181.67	210.72
16	148.00	164.00	180.00	161.32	189.05	221.45
17	151.00	168.00	185.00	166.21	196.72	232.74
18	154.00	172.00	190.00	171.26	204.71	244.59
19	157.00	176.00	195.00	176.45	213.02	257.05
20	160.00	180.00	200.00	181.80	221.67	270.15

21	163.00	184.00	205.00	187.32	230.67	283.91
22	166.00	188.00	210.00	193.00	240.04	298.38
23	169.00	192.00	215.00	198.86	249.79	313.58
24	172.00	196.00	220.00	204.89	259.93	329.55
25	175.00	200.00	225.00	211.11	270.48	346.34
26	178.00	204.00	230.00	217.51	281.46	363.99
27	181.00	208.00	235.00	224.11	292.89	382.53
28	184.00	212.00	240.00	230.91	304.79	402.02
29	187.00	216.00	245.00	237.92	317.16	422.50
30	190.00	220.00	250.00	245.14	330.04	444.02
31	193.00	224.00	255.00	252.57	343.44	466.64
32	196.00	228.00	260.00	260.24	357.39	490.42
33	199.00	232.00	265.00	268.13	371.90	515.40
34	202.00	236.00	270.00	276.27	387.00	541.66
35	205.00	240.00	275.00	284.65	402.71	569.25
36	208.00	244.00	280.00	293.28	419.06	598.25
37	211.00	248.00	285.00	302.18	436.08	628.73
38	214.00	252.00	290.00	311.35	453.78	660.76
39	217.00	256.00	295.00	320.79	472.20	694.43
40	220.00	260.00	300.00	330.53	491.37	729.81
41	223.00	264.00	305.00	340.55	511.32	767.00
42	226.00	268.00	310.00	350.89	532.08	806.07
43	229.00	272.00	315.00	361.53	553.69	847.14
44	232.00	276.00	320.00	372.50	576.16	890.31
45	235.00	280.00	325.00	383.80	599.56	935.67
46	238.00	284.00	330.00	395.45	623.90	983.34
47	241.00	288.00	335.00	407.44	649.23	1,033.44
48	244.00	292.00	340.00	419.81	675.59	1,086.10
49	247.00	296.00	345.00	432.54	703.02	1,141.43
50	250.00	300.00	350.00	445.67	731.60	1,199.52
75	325.00	400.00	475.00	940.85	1,978.83	4,154.40
100	400.00	500.00	600.00	1,986.20	5,352.36	14,388.34

What the New Savings Habit Has Done for the Banks

Issued by The War Loan Organization Fifth Federal Reserve District, Richmond, Va.

INCREASES IN DEPOSITS FROM DECEMBER 31, 1916, TO DECEMBER 31, 1918

State	No. of Banks		In Individual Demand Deposits		In Savings Deposits		In Total Deposits	
	In State	Reporting	Amount	Per Cent	Amount	Per Cent	Amount	Per Cent
Maryland	278	242	$50,968,000	31.04	$33,059,000	20.89	$97,140,000	26.21
District of Columbia	45	42	42,320,000	66.95	11,324,000	47.46	59,041,000	59.79
Virginia	476	381	79,339,000	67.11	32,701,000	43.06	117,881,000	54.68
West Virginia	285	227	32,523,000	49.95	9,149,000	18.56	42,833,000	36.19
North Carolina	537	369	46,522,000	71.61	14,703,000	32.85	72,048,000	57.15
South Carolina	426	302	33,109,000	83.05	26,695,000	73.60	50,007,000	59.67
Totals	2,047	1,563	$284,781,000	55.25	$127,631,000	32.87	$438,950,000	43.33

COUNTIES SHOWING DECREASES IN DEPOSITS

State	No. of Counties		In Individual Demand Deposits		In Savings Deposits		In Total Deposits	
	In State	Reporting	Number	Per Cent	Number	Per Cent	Number	Per Cent
Maryland	24[1]	24[1]	0	0	0	0	0	0
District of Columbia	...	...	0	0	0	0	0	0
Virginia	102[2]	89[3]	0	0	4	4.49	0	0
West Virginia	49	49	0	0	12	24.49	0	0
North Carolina	100	89	5	5.62	10	11.23	3	3.38
South Carolina	46	46	0	0	0	0	0	0
Totals	321	297	5	1.68	26	8.75	3	1.01

COUNTIES SHOWING INCREASES IN DEPOSITS

State	No. of Counties		In Individual Demand Deposits		In Savings Deposits		In Total Deposits	
	In State	Reporting	Number	Per Cent	Number	Per Cent	Number	Per Cent
Maryland	24[1]	24[1]	24	100.	24	100.	24	100.
District of Columbia	....	....	....	.....	....	.....	....	.....
Virginia	102[2]	89[3]	89	100.	84	94.39	89	100.
West Virginia	49	49	48	97.96	36	73.47	49	100.
North Carolina	100	89	83	93.26	78	87.64	86	96.63
South Carolina	46	46	46	100.	46	100.	46	100.
Totals	321	297	290[4]	97.65	268[5]	90.23	294	98.99

[1] Includes Baltimore City.
[2] Includes Richmond City and Alexandria City.
[3] Eight counties in State have no banks.
[4] Two counties did not report Demand or Savings, but only total deposits.
[5] Three counties did not classify savings deposits in their reports.

SUMMARY

The growth of bank deposits in the Fifth Federal Reserve District during the war period was nothing less than remarkable.

Reports filed with the Federal Reserve Bank of Richmond by 1,563 banks out of the 2,047 in the district show that during the two calendar years 1917–1918:

Individual demand deposits increased ..... $284,781,000 or 55.25%
Savings deposits increased ..... 126,631,000 or 32.87%
Total deposits increasd. 438,950,000 or 43.33%

These increases are the more remarkable in view of the fact that during practically the same period the people of this district, in addition to these savings and their liberal contributions to the Red Cross, Y. M. C. A., Knights of Columbus, United War Work, and many other special funds, all made in the face of a rapidly increasing cost of living—subscribed for, and to a large extent paid for out of their current earnings, $850,000,000 worth of bonds of the first four Liberty Loans and about $75,000,000 of

War Savings Stamps, not counting $225,000,000 subscribed to the Victory Liberty Loan.

This growth in deposits was general throughout the district. The increases in individual demand deposits varied from 31.04 per cent in Maryland to 83.05 per cent in South Carolina; in savings deposits from 18.56 per cent in West Virginia to 73.60 per cent in South Carolina; and in total deposits from 26.21 per cent in Maryland to 59.67 per cent in South Carolina.

Within the States also the increases were very general. Of the 321 counties in the district (exclusive of the District of Columbia) reports were received from 297. Of these 297 counties 290 reported increases in demand deposits; 268 in savings deposits, and 294 total deposits.

It is especially notable that savings deposits increased 32.87 per cent. There has been a very general increase in savings deposits throughout the country, despite the heavy purchases of Liberty Bonds. The two principal factors, perhaps, that contributed to this condition were the larger wages paid workers during the war period, and the savings habit which became far more general than ever before among the great mass of Americans. Many of them bought War Savings and Thrift Stamps periodically; many paid for Liberty Bonds on installment plans. Very generally those who bought these securities did not withdraw their money from the savings banks to pay for them, but saved from current earnings. Then, when these securities were paid for, the people, by force of their newly acquired habit of saving, continued to save and to deposit in the banks.

Appendix

Selected Bibliography of Books on Thrift and Savings

By George F. Zook

Professor of Modern European History, The Pennsylvania State College; recently with the United States Treasury Department

Atwood, A. W. How to Get Ahead. Indianapolis, Bobbs-Merrill, 1917. 277 p. A popular treatment of individual and domestic economy and wise investments.

Brown, M. W. Development of Thrift. New York, Macmillan, 1899. 222 p. The purpose of thrift and the various agencies for saving money.

Carver, T. N. War Thrift. Carnegie Endowment for International Peace. New York, Oxford University Press, 1919. 68 p. The fundamental principles underlying the necessity for thrift in war; applicable also in peace.

Chamberlain, A. H. and J. F. Thrift and Conservation. Philadelphia, Lippincott, 1919. 174 p. Simple and readable account which emphasizes the importance of conserving goods and materials.

Ely, R. T., and others. The Foundations of National Prosperity. New York, Macmillan, 1917. 378 p. Comprehensive exposition of the necessity for the conservation of human and natural resources in every stage of human progress.

Farmer, L. A. B. C. of Home Saving. New York, Harper, 1916. 113 p. Handbook of practical suggestions for economy in the home.

Fowler, N. C., Jr. How to Save Money. Chicago, McClurg, 1913. 287 p. A popular treatise valuable, to those not familiar with financial operations, for its sound advice on the ways to save and invest money.

Gregory, M. H. Checking the Waste. Indianapolis, Bobbs-Merrill, 1911. 318 p. A simple and practical résumé of the importance and usefulness of our natural resources.

Hall, Bolton. Thrift. New York, Huebsch, 1916. 247 p. Popular discourses on modern methods of using personal and social resources most advantageously.

Hamilton, J. H. Savings and Savings Institutions. New York, Macmillan, 1902. 436 p. A standard and comprehensive account of savings institutions in America.

Harris, E. P., and others. Coöperation, the Hope of the Consumer. New York, Macmillan, 1918. Describes the success of coöperation, especially the Rochdale plan, in Europe and in America.

Jackson, B. B., and others. Thrift and Success. New York, Century, 1919. 288 p. Suggestive and inspirational extracts for use in the elementary schools.

Kemmerer, W. Postal Savings. Princeton, Princeton University Press, 1917. 176 p. Excellent and thorough account.

King, W. I. The Wealth and Income of the People of the United States. New York, Macmillan, 1915. 278 p. The most comprehensive and valuable book on this subject.

Kirkpatrick, E. A. The Use of Money. Indianapolis, Bobbs-Merrill, 1915.

226 p. Very suggestive book for the training of children in the use of money.

Leeds, J. B. Household Budget. Germantown, Pa., The Author, 1917. 240 p. Actual divisions of time and money in running a household with suggestions for saving both. Emphasizes the productive labor of the housewife.

MacGregor, T. D. The Book of Thrift. New York, Funk and Wagnalls, 1915. 349 p. Suggestive and practical chapters on the various aspects of the thrift movement.

Marcossen, I. F. How to Invest Your Savings. Philadelphia, Altemus Company, 1907. 120 p. Short chapters on the various kinds of available investments.

Marden, O. S. Thrift. New York, Crowell, 1918. 92 p. A popular discourse on personal economy for young people.

Mead, E. E. The Careful Investor. Philadelphia, Lippincott, 1914. 289 p. Good advice as to how to invest in stocks and bonds.

Nesbit, Florence. Household Management. New York, Russell Sage Foundation, 1918. 170 p. Problems that homemakers who live in crowded city quarters have to meet.

Powell, G. H. Coöperation in Agri-Culture. New York, Macmillan, 1913. The value of coöperation to the farmer from a buying as well as a selling point of view.

Pritchard, M. T. and Turkington, G.A. Stories of Thrift for Young Americans. New York, Scribner, 1915. 222 p. Stories suited to children in the upper grades.

Rose, M. S. Feeding the Family. New York, Macmillan, 1916. 450 p. Handbook on food problems presented especially from the point of view of nutrition.

Smiles, Samuel. Thrift. New York, Harper (1875). 404 p. A very suggestive book concerning the importance and necessity of personal economy and savings institution.

Straus, S. W. (The History of the Thrift Movement in America. Philadelphia, Lippincott (in press). Chiefly devoted to the history of the recent thrift movement with special attention to the American Society for Thrift.

Taber, C. W. Business of the Household. Philadelphia, Lippincott, 1918. 438 p. Treats the financial problems of the home, budgets, standards of expenditures, accounts and investments.

Wellman, M. T. Economy in Food. Boston, Little, Brown, 1918. 36 p. Concerning economy in buying and storing food.

Withers, Hartley. Poverty and Waste. New York, Dutton, 1916. 180 p. An excellent exposition of the economic principles underlying personal and public economy.

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